S. HRG. 101-331, PT. 2

CLEAN AIR ACT AMENDMENTS OF 1989

HEARING

BEFORE THE

SUBCOMMITTEE ON ENVIRONMENTAL PROTECTION

OF THE

COMMITTEE ON
ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

ONE HUNDRED FIRST CONGRESS

FIRST SESSION

TO RECEIVE TESTIMONY FROM HON. WILLIAM K. REILLY,
ADMINISTRATOR, ENVIRONMENTAL PROTECTION AGENCY

ON

S. 1490

A BILL TO AMEND THE CLEAN AIR ACT TO PROVIDE FOR THE ATTAINMENT AND MAINTENANCE OF THE NATIONAL AMBIENT AIR QUALITY STANDARDS, THE CONTROL OF TOXIC AIR POLLUTANTS, THE PREVENTION OF ACID DEPOSITION, AND OTHER IMPROVEMENTS IN THE QUALITY OF THE NATION'S AIR

AND OTHER PENDING CLEAN AIR PROPOSALS

PART 2

SEPTEMBER 26, 1989

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CONTENTS

OPENING STATEMENTS

Page
Baucus, Hon. Max, U.S. Senator from the State of Montana 1
Breaux, Hon. John, U.S. Senator from the State of Louisiana 15
Chafee, Hon. John H., U.S. Senator from the State of Rhode Island 5
Durenberger, Hon. Dave, U.S. Senator from the State of Minnesota 12
Graham, Hon. Bob, U.S. Senator from the State of Florida 14
Lautenberg, Hon. Frank R., U.S. Senator from the State of New Jersey 16
Lieberman, Hon. Joseph I., U.S. Senator from the State of Connecticut 9
Mitchell, Hon. George J., U.S. Senator from the State of Maine 7
Moynihan, Hon. Daniel Patrick, U.S. Senator from the State of New York 4
Warner, Hon. John W., U.S. Senator from the Commonwealth of Virginia 8

WITNESS

Reilly, Hon. William K., Administrator, Environmental Protection Agency 17
    Written statement 75
    Responses to additional questions from Senator Mitchell 98
S. 1490 113

Statements submitted for the record:

    Van de Kamp, Hon. John K., Attorney General, State of California 307
    American Planning Association 319

CLEAN AIR ACT AMENDMENTS OF 1989

TUESDAY, SEPTEMBER 26, 1989

U.S. Senate,
Committee on Environment and Public Works,
Subcommittee on Environmental Protection,
Washington, DC.

The subcommittee met, pursuant to notice at 9:35 a.m. in room 216, Hart Senate Office Building, Hon. Max Baucus (chairman of the subcommittee) presiding.

Present: Senators Baucus, Moynihan, Mitchell, Lautenberg, Breaux, Chafee, Durenberger, Warner, Jeffords, and Symms.

Senator Baucus. Senator Moynihan, do you have a statement at this time?

Senator Moynihan. I'd like to say, Mr. Chairman and distinguished associates, that the National Assessment on Acid Precipitation study, the NAPAP study will be ready in about four weeks. That will have been 10 years, and we will have spent—I think this came as a great surprise certainly to me, and probably to the other members—we spent half a billion dollars on that now. That was the Acid Precipitation Act of 1980, which set a longitudinal study in place to see what we could learn about this subject.

The findings appear to be quite impressive. I think the committee will want to consider them. And I think we would want at least to record that this will be the first time that the committee has undertaken to write environmental legislation on the basis of research which the committee commissioned and sought to its welfare over a long period of time. And having seen this opportunity, I thought I'd take it to so report

Senator Baucus. Thank you very much, Senator. You're not one to pass up an opportunity, and we appreciate that.

Senator Moynihan. You're very kind, Mr. Chairman.

Mr. Chafee, do you have any questions?

Senator Chaffee. I'm still trying to define what a longitudinal study is. That's over time, as opposed to——

Senator Moynihan. When you're trying to fill up a blank space in a hearing like this, instead of saying over time, you say a longitudinal study and that stretches it out.

Senator Chaffee. Thank you.

Senator Moynihan. You're very kind.

OPENING STATEMENT OF HON. MAX BAUCUS, U.S. SENATOR FROM THE STATE OF MONTANA

Senator Baucus. Thank you, sir.

I see, our Administrator finally has arrived.

Bill, we're honored to have you here this morning. Thank you for coming. This morning we are continuing a series of hearings on amendments to the Clean Air Act. Last week we heard from several experts on air toxics. Today we'll hear from Administrator Reilly, who will testify on clean air proposals pending before the committee. Later this week and next week we'll hear from other experts on nonattainment and acid rain.

With regard to acid rain which we will fully discuss next week, let me make a comment. Last Friday, Senator Mitchell and I announced an agreement on acid rain. We agreed to propose legislation that in our judgment improves on the President's provisions. We expect to introduce an acid rain bill later this week, and believe that that bill will provide greater and more fair protection. It will repeal the percentage reductions so clean coal can play its full, free market role in the solution. It will give States credit for their past investments in reducing sulphur dioxide emissions. And it will reduce to 20 the number of plants covered in the first phase reductions. This should make enforcement easier as EPA prepares for the new allowance system of marketable permits. I'm sure we'll get into some of these issues today and next week as we discuss the full complement of clean air amendments.

As for today, this is an historic hearing. The President's full participation with his own clean air legislation has completely changed the landscape of the debate.

We now have a unique opportunity to enact strong legislation that fully and finally will give us all in America clean air to breathe. That's the good news, and we must not squander it.

But just the same, we must not pass a bill that represents a low common denominator. We must not pass legislation that provides clean air for some but not for others. Or one that provides so much discretion that those implementing the law can mediate, conciliate or negotiate away our health and safety.

I'm honestly encouraged by the efforts of President Bush and Administrator Reilly. I believe that their hearts are in the right place. But in my judgment, the President's bill will still leave air too dirty to see the thousand points of light that he has occasionally referred to.

The Administration's bill has far too many exceptions. It leaves EPA, in my judgment, with too much discretion. And it will fall short of our goal of attaining clean air for everyone, a goal that we've been trying to reach since 1970 when we first enacted clean air legislation.

One hundred fifty million Americans today, well over half of our Nation's population, still live in cities with dirty air. Much of our air is still so polluted with ozone, carbon monoxide, and small particulate matter that medical experts say it is unsafe to breathe. In fact, one panel of public health experts claimed earlier this year that we are facing "a public health crisis" due to air pollution. In the nearly 20 years since we enacted landmark clean air legislation, automobile manufacturers have made significant progress in reducing auto emissions. Despite that progress, mobile sources still, unfortunately, account for 50 percent of the ozone problem we face, and 90 percent of our carbon monoxide problems. And today we are paying the price for our dirty air. It is especially harmful to our children. During the summer of 1987 in some parts of the country our kids were playing outdoors in air that was so dirty it would have been unlawful to work in.

All told, the air we now breathe is responsible for harming and killing between two to five percent of our population. Without further action to combat air pollution we could expect 100,000 to 150,000 premature deaths every year. To put this in perspective, without further action, more people will continue to die each year from breathing the exhaust from our automobiles than from automobile accidents.

This brings us to the subject of today's hearing, how best to clean up the air. Today we will hear what Bill Reilly and the Administration believe is the best solution. As I've already mentioned, I believe the Administration's bill is a good start, but I have some concerns with the specifics of the bill. And I'm not alone. OTA, in a report just released, concludes:

> . . . in some cases, the Administration's bill is projected to actually allow increased emissions relative to current law. This is primarily due to the adverse effect that an averaging program can have on emissions.

This is troubling. It seems that all of the progressive elements of the President's bill, and there are many, are wiped out in one fell swoop by averaging. The problem with averaging is that it lets the Administrator decide how many vehicles must be certified to meet emissions standards. Consumers would no longer know if their particular car was clean or dirty. The end result is that hydrocarbon emissions might increase 20 percent, perhaps more. NO_X emissions might also increase up to three percent if averaging is broadly interpreted by the Administrator.

I am also troubled that the President's proposed NO_X standard falls far short of levels that existing technology can already achieve. Vehicles sold in California already meet a NO_X standard of 0.4 grams per mile. Why then does the President want to allow vehicles to meet 0.7 grams per mile?

I am also troubled that the Administration's bill does not mandate running loss controls, or require on—board diagnostic systems. Instead it leaves these decisions to the Administrator.

Mr. Reilly, if this bill is passed as proposed you will be a very busy man. I believe that we need to help you out, give you a little more direction and a little less discretion. I believe we need stronger legislation, like S. 1630 that I introduced along with several of my colleagues, just 12 days ago.

S. 1630 makes some hard choices that the President's bill does not make. It does not leave discretion to the EPA Administrator on those kinds of matters that are best decided up front. Instead it establishes a number of tough measures to reduce emissions from motor vehicles. It sets new tailpipe standards for NO_X and hydrocarbons, both precursors of ozone formation. It establishes a new standard for carbon monoxide under cold weather conditions. It requires the maximum reductions in evaporative hydrocarbon emissions, both while the car is in the idle mode and while it is running. As a major first step for controlling greenhouse gases, the bill requires cars, for the first time, to meet a carbon dioxide standard. Local sources are also asked to do their share. And the bill tailors the number and severity of requirements to the extent of their ozone problem. And the bill contains tough sanctions for those who fail to submit or implement a State Implementation Plan, or who fail to achieve their emissions milestones.

I am convinced that S. 1630 will help us win the race for clean air. I'm afraid that the Administration's bill will not get us to the finish line on time.

I thank Mr. Reilly for coming here this morning. I look forward to your testimony, Mr. Administrator, and your views on how we should proceed.

I'd like now to turn first to Senator Moynihan.

OPENING STATEMENT OF HON. DANIEL PATRICK MOYNIHAN, U.S. SENATOR FROM THE STATE OF NEW YORK

Senator MOYNIHAN. Mr. Chairman, thank you again for pressing forward as you are doing. I make two queries, and one comment.

The query has to do with how we're going forward now. We're going to get to marking up a bill when we finish this hearing cycle. Will we be using the President's bill as a basis for our markup? Have we discussed that as a group? I think Mr. Reilly would hope we might do, as he's pretty proud of his bill and I think he ought to be. And I just wondered what the committee thinks, what the Chairman thinks.

Senator BAUCUS. It is the intention of the Chairman of the subcommittee to use the bill introduced by Senator Durenberger for toxics, the bill introduced by myself on nonattainment, and also the bill to be introduced by myself and Senator Mitchell for acid rain.

Senator MOYNIHAN. That's the one on Friday?

Senator BAUCUS. That's correct. That's the bill that will be introduced.

Senator MOYNIHAN. It's not introduced?

Senator BAUCUS. That's correct.

Senator CHAFEE. The enthusiasm for that last part isn't unanimous. I'm not saying there's lack of enthusiasm for that last bill. I'm talking about the markup vehicle. I would hope on the last part, that is the acid rain, we could seriously consider using the President's. But never mind.

Senator MOYNIHAN. We can talk about that. But I think it's something to be considered.

The other thing is to say that you couldn't be more right about air pollution as a health problem. It really is concentrated in the large cities, and particularly cities such as Manhattan, where you have this concentration in the canyons. Because the mass transit industry is getting interested in alternative fuels, and I think Mr. Reilly would attest to that, I would hope as we address alternative fuel use, that our regulations be neutral as between the various alternatives. This is still in a developmental stage, and I think it should be. I don't think we know enough, or that we have any reason to prefer one to the other.

Senator BAUCUS. Well, I appreciate that, Senator, and that's all the more reason why you probably appreciate the markup vehicle.

Senator MOYNIHAN. I'm getting more appreciative all the time.

I mean a non-methane hydrocarbon standard should be similar across those standards.

And lastly, just to say that the first full results we've had from the NAPAP study, as I think the Administrator knows, really are very encouraging. They say, or do, what we're obviously going to do, and you're going to have in a 10 or 20 year time frame very significant reversal to what seemed to be the normal and previously existing standards. I mean, whatever we have done to that particular environment, it's not irreversible, and it's not something that's going to take a half century to reverse.

Senator BAUCUS. Thank you.

Senator Chafee.

OPENING STATEMENT OF HON. JOHN H. CHAFEE, U.S. SENATOR FROM THE STATE OF RHODE ISLAND

Senator CHAFEE. Thank you, Mr. Chairman.

First, I want to join you in welcoming Mr. Reilly, Mr. Rosenberg, and Mr. Brenner here. This is really a first. It's the first time since I came to the Senate in 1976 that an Administration, either Democrat or Republican, has submitted clean air legislation to the Congress. So, we're very, very glad with what you've done, with your comprehensive proposals which you have before us in S. 1490, the President's clean air bill. We've tried, as you know, we've said so many times, this committee has tried three times over the past eight years, to pass amendments to the Clean Air Act, but we failed because of lack of political will on the part of the Congress and the part of the Administration at the time. But now we've got a President and an Administration that's ready to go forward, and certainly this Congress is, this Senate is. And so I think we've got the ingredients here for a good clean air bill.

The Administration's proposal addresses all the major areas of the Clean Air Act, namely strategies to bring all parts of the country into attainment on ozone, carbon monoxide, and particulate matters. There's the section for better controls over toxic air pollutants and reduction of acid deposition. The President's bill, which, of course, Mr. Reilly had a major hand in developing, takes us a long way toward our shared goals of improving air quality. And in announcing his proposals in June, we all remember that the President invited Members of Congress, and others, to come into a dialogue on clean air amendments. And that's what we're beginning today at these hearings.

Now, there are two bills before this committee in addition to S. 1490. We've got S. 816, which is the air toxics bill, and we've got S. 1630, which is the non-attainment bill. And then, of course, there will be an acid rain bill. And these aren't so different from the President's proposals. But there are differences. And I would hope to explore with you, Mr. Reilly, some of those differences. Perhaps the greatest difference between the Administration's and the committee's bills are in provisions that deal with motor vehicles.

The Administration bill relies heavily on new alternative fuels program to address pollution from vehicles. The committee hasn't addressed that in great detail as yet, and we're pushing to improve the performance of gasoline fuel vehicles, which we think are going to be dominating the market for new vehicles for at least the next decade. I look forward to hearing how the Administration expects to implement the alternative fuels program, what air quality results are expected, and whether the program favors one fuel over another.

I'm also interested in the averaging provisions in the vehicle portions of the Administration's bill. As we all know, the Office of Technology Assessment has said that these provisions could wipe out or seriously erode the emission standards that would otherwise result from tighter tailpipe standards. There's another provision in S. 1630 that I believe is very important, but not contained in S. 1490. That is the provision that reduces carbon dioxide from automobiles. This provision would reduce the CO_2 emissions per gallon of gas by about 25 percent beginning with the 1995 models, and by about 45 percent beginning with the models in the year 2003. This provision by itself will not solve the global warming problem, and it may be characterized as making only a minor contribution, but the fact does remain that vehicle use in the U.S. contributes three percent of global CO_2 emissions. It's all well and good to talk about what's happening in the other areas, but it seems to me that we've got to tackle each area, small though it might be, to reduce the CO_2 emissions. And these include better fuel economy from the individual vehicles. Mr. Reilly, I hope you'll be able to comment on this provision in the committee bill.

With respect to the requirements for nonattainment, the President's bill and the committee's bill contain similar deadlines for achieving health standards. My questions involve whether the lack of clear sanctions in the Administration's bill, coupled with the greater degree of discretion given to the Administration in setting the requirements and exempting areas, will result in meeting the attainment deadlines.

The acid rain program in S. 1490 is an ambitious and an innovative proposal, a good one, I think. And I think, as I mentioned before, it would make a sound starting point for the committee's deliberations, that is the acid rain portion of your legislation.

I will want to question the basis for provisions dealing with controls for oxides of nitrogen, and whether additional emission reductions may not be both desirable and feasible. And I hope we can get a better understanding of the trading program and assurances that such an approach will result in enforceable emission reductions. We're not totally clear on that trading program. In its toxic air pollution provisions, S. 1490 takes an approach very similar to S. 816. The committee will want to hear from you, Mr. Reilly, about the absence of a program to address accidental releases of hazardous air pollutants, and how you propose to reduce pollution from a host of smaller sources, the so-called area sources that when all put together add up to 75 percent of the pollutants in some areas.

So, we've got a full morning and a demanding period ahead of us in our efforts to arrive at final clean air amendments. I just again want to thank you for coming today, and we look forward to working with you. And just to compound the problem, there are several of us who are on the Finance Committee, meeting across the hall on the Catastrophic, which is of great interest to your boss and the country as a whole.

Senator **Baucus**. As well as the members.

Senator **Chafee**. As well as the members of this committee.

Senator **Moynihan**. Catastrophic health insurance is needed because of air quality.

Senator **Chafee**. And so, we're going to do our best to be two places at once, but if we should be absent we want you to know that our hearts haven't forgotten you in the least. And we shall be across the hall and back and forth, covering both hearings at once, hopefully.

Thank you.

Senator **Baucus**. Thank you, Senator.

Mr. Reilly, I was going to make that same point at the conclusion of the Senator's remarks. There are a good number of members of this committee who are on the Finance Committee that will be going back and forth, but we'll make every effort to spend as much time as we possibly can for this hearing.

Mr. **Reilly**. Thank you, Mr. Chairman.

Senator **Baucus**. I notice our Majority Leader is with us today. Senator, would you like to give a statement?

OPENING STATEMENT OF HON. GEORGE J. MITCHELL, U.S. SENATOR FROM THE STATE OF MAINE

Senator **Mitchell**. Thank you very much, Mr. Chairman, and my thanks to my colleagues for permitting me to make a brief statement now.

Mr. Reilly, Mr. Rosenberg, and Mr. Brenner, welcome. I and the other members of the committee look forward to your testimony. I commend you, Mr. Reilly, and the President for the legislation which you submitted, which was introduced last month, and look forward to working with you and having a comprehensive and meaningful clean air legislative enactment become law during this Congress.

Your attitude is a welcome change from that of the previous Administration, which for eight years opposed any action with respect to clean air. And although we disagree on some approaches to some of the problems, that's understandable given the magnitude of the problems and the complexity of the solutions. I'm confident that working together in good faith that we can develop the kind of legislation in which we all can take pride, and which will provide much needed protection for the American people from the health threat from air pollution.

I think it is important that these hearings today and subsequent hearings make clear to the American people that air pollution is first and foremost a threat to the health of the American people. It is not an environmental issue in the traditionally understood meaning of that term, that is protection of natural resources. Although it is all of those things, it is first and foremost a public health issue. And we have an obligation as public officials, you and we, to do everything we can to protect the health of American children, American senior citizens and those Americans who suffer from respiratory ailments. They are all at risk unless we act promptly. And I look forward to working with you in that regard.

I have a very keen personal interest in this. Senator Moynihan introduced the very first acid rain bill in 1980 and the results of that will be available later this year in the completion of the 10-year study. I introduced the first acid rain control bill in 1981. So, Senator Moynihan has been at it for nine years, I've been at it for eight. Neither of us wish to make it our life's work. And we look forward very much to completing action on this legislation in this Congress.

I must, unfortunately, Mr. Reilly, leave to attend a meeting with the President, otherwise I would stay because this is very important to me. I'm going to try to come back after that meeting. I assume you'll be here for awhile. If I do not, or if the meeting is over by the time I get back from the White House, I have a fairly substantial number of questions which, Mr. Chairman, I'd like to submit in writing and get responses as promptly as possible.

I'll say, finally, Mr. Reilly, that I don't think you could have a better and less partisan committee with which to deal on this issue. The protection of the American environment and the health of the American people, at least in the decade I've been on this committee, has been almost entirely non-partisan. And we hope to continue in the manner working closely with our colleagues on both sides of the aisle to produce the best possible bill for the American people.

I thank you very much. Mr. Chairman, I thank you for your courtesy.

Senator BAUCUS. Thank you very much, Mr. Leader. It's clear that because not only the President's direct interest in this matter, but also of yours, Mr. Leader, that we will have action in this Congress. And we're very grateful for your very direct and helpful participation.

Next on the list is Senator Warner.

OPENING STATEMENT OF HON. JOHN W. WARNER, U.S. SENATOR FROM THE COMMONWEALTH OF VIRGINIA

Senator WARNER. Yes, thank you, Mr. Chairman. And I will be very brief.

This reminds me of the classroom that convenes in the morning and each of the students brings in a note to the teacher explaining why he's going to be absent. I have to leave to join the President for some announcements on National security. So I'll apologize for my absence.

I think my colleagues have summarized very clearly the historical point that we're at with you sitting here representing a President of the United States dealing with an act that was passed in 1970. And in the 1976, 1977 time frame President Carter made some efforts, and then we had the Reagan years which are likened to a brown out, nothing happened. And now we're here with our President having observed this political football being subjected to a lot of turnovers here in this period, but now the President has the ball, you're the quarterback, and we expect you to score with it. And I don't mean that in a partisan sense. To the contrary. It's bipartisan. I've joined my colleagues here on their proposals, as well as supporting the President, in a spirit of bipartisanship to achieve success.

It's essential for all America. Of course, I have my own interests in my State. I have three major communities, Northern Virginia, which is the nexus here with D.C. and Maryland, suffering from air pollution; Richmond; the Norfolk, Tidewater area, and therefore they're suffering from gridlock and traffic and gridlock in the lungs. And it's time we got on with it, and I hope you're successful.

[Senator Warner's prepared statement follows:]

OPENING STATEMENT OF HON. JOHN W. WARNER, U.S. SENATOR FROM THE COMMONWEALTH OF VIRGINIA

I want to welcome EPA Administrator Reilly here today to testify concerning S. 1490, the Administration's clean air proposal, and other clean air bills before the Subcommittee. Mr. Reilly, may I say to you that although the Subcommittee had some other hearings on this subject last week, by testifying today you are in fact officially kicking off the process that will lead towards enactment of amendments to the Clean Air Act in the coming year. Your role is particularly fitting, in my view, since your boss, the President, really kicked off the entire process, and changed the dynamics of the debate, by introducing a strong, comprehensive clean air bill earlier this year.

I and all other Republicans on the full Environment and Public Works Committee, along with an impressive number of Democrats, were pleased to join as original cosponsors of the President's proposal. For my part, I saw the legislation as vital in breaking the logjam that had prevented the Congress from making true progress toward changing the law. While I don't agree with every single provision in S. 1490, I think all of us can agree that the Administration's bill makes a serious attack on the problem of air pollution faced by our Nation.

Mr. Reilly, as you know, today we will discuss changes in the existing clean air law that will bring great improvements to the health and well-being of all Americans, including those in my home state of Virginia. Perhaps the most striking health problem Virginia faces is that of ozone pollution, or urban smog. At the present time, the State of Virginia contains three areas—the Washington, D.C. suburbs, and the cities of Richmond and Norfolk—that continue to violate the national standards for ozone. This problem has been brought on largely by the stunning growth in development and traffic congestion that we have seen in and around these areas. As I have said before, we in Virginia have gridlock on our roads and gridlock in our lungs.

Now, Mr. Reilly, I know that you are the Administrator for Environmental Protection, not the Highway Administrator. But, the problem of ozone pollution really cuts across these lines. It is my hope that the proposals we consider today will do as much to cure the underlying problem of uncontrolled development and congestion as it will to cure the symptom—air that we can see and smell. Only then can we attack the heart of the clean air problem.

In conclusion, if I may return to my orginal analogy, I commend you, Mr. Reilly, and the President for a strong kick-off. It is now up to the Congress not to fumble on the return. I look forward to your testimony today, and to your assistance in this important endeavor.

Thank you, Mr. Chairman.

Senator **BAUCUS**. Thank you, Senator.

Next is Senator Lieberman.

OPENING STATEMENT OF HON. JOSEPH I. LIEBERMAN, U.S. SENATOR FROM THE STATE OF CONNECTICUT

Senator **LIEBERMAN**. Thank you, Mr. Chairman.

I join in the welcome of Bill Reilly and his team here. And of course, I congratulate them on their leadership. I think that the hopes that so many of us expressed at that day in January, I guess it was, when we heard Bill Reilly's nomination here have been to say realized may make you comfortable. I'd say we've been encouraged, greatly, and appreciate your partnership in this effort. And without it, and without the President's support, obviously, we would not have the prospect of clean air legislation.

Mr. Chairman, I have a statement that I'd ask to be included in the record. I will not deliver it. It trails, may I say respectfully to you, Mr. Chairman, much of what you said earlier today. I would just add a few specific references on this point.

Like other here I think the Administration's acid rain proposal is the best of the three. It's a strong proposal. Obviously, I think the committee will tinker with it some, but I particularly wanted to state on the record my admiration for what I would presume would be the successful advocacy that you carried out, Mr. Administrator, in fighting for the strong parts of that bill, particularly the cap on future emissions, which I think is extremely important to the integrity of the bill.

I am more unhappy with the proposals on smog and air toxics, as I think you know, I don't think they go far enough to guarantee people the clean air that they want. I think people are prepared to give more than these bills ask of them. I was recently asked by one of the major auto makers to actively work to obtain cosponsors of the bill. That doesn't surprise me, but what does surprise me is why the Administration is advocating such a bill. The Office of Technology Assessment released a report last Thursday which concluded that the meansures proposed in our committee's bill would achieve as much as 55 percent more reduction in emissions from motor vehicles than the Administration's bill. And I, like others in Congress, have heard from groups and governments across a very wide spectrum with similar analyses.

The North Central Texas Council of Governments wrote and asked us to support standards that are more stringent than those currently required in California. You know about the seven northeast Commissioners of Environment, including my own in Connecticut, that concluded that the Administration bill could result in a relaxation of current standards by as much as 50 percent. Commissioner Jorling of New York has told us that if the Federal Government does not act to impose very strict motor vehicle standards, he may be forced to take extreme actions, such as restricting the use of older vehicles on the roads of New York. All of that is a way of saying that I think we can do better, particularly on smog, and I hope we will.

And I would say this, and I say it respectfully after only eight months here—actually our term here is about the same—which is that this becomes a very small community of those of us who are players within the community. And there's a tendency that we may attempt to reach a compromise that pleases all of us, and I mean in good faith. But, obviously, our ultimate responsibility is to the public. And it seems to me as we negotiate with the various interest groups involved here, that we have to keep that in mind. Because if my constituents in Connecticut are any example, across the board regardless of ideology, party, age, any other demographic identifying factor, they are deeply concerned about the quality of the environment there. They are worried about the quality of the air, particularly. And they are ready to support the strongest possible measures. And in that sense I think the public is ahead of those of us who are here in Washington. And I hope that we set their

desires and their willingness to really give for cleaner, healthier air as a standard by which we measure our work in this session on this bill.

I look forward to your testimony this morning.

[Senator Lieberman's prepared statement follows:]

OPENING STATEMENT OF HON. JOSEPH I. LIEBERMAN, U.S. SENATOR FROM THE STATE OF CONNECTICUT

I welcome Administrator Reilly here today. There is no doubt that his leadership and that of President Bush have been extremely important in the Clean Air debate. They have broken the logjam and there will be a Clean Air Act signed into law this Congress.

But the question remains for those of us in Congress: How clean will the Clean Air Act be? The Administration's Clean Air Act proposal as a whole does not go far enough to accomplish what most Americans want: truly clear, clean and healthy area. This is not a political or partisan issue. Pollution is not about politics. Pollution is about public health.

Before discussing my criticisms of the bill, I would like to commend the Administrator for the acid rain provisions. While this Committee may work to strengthen or change certain aspects of the legislation, the bill truly provides protection of human health and the environment. For example, according to a recent study by EPA, if the provisions of this law are enacted, the lakes of the Northeast—damaged by acid rain from far away—will begin to be restored to healthy conditions.

I can imagine that the Administrator fought long and hard for certain aspects of the acid rain bill, such as the cap on future emissions. I appreciate and admire his hard work.

In contrast, the Administration's proposals on smog and air toxics fail to take the tough steps that are necessary to make a real dent in dirty air. The bills introduced by this Committee seek to close the loopholes in the Administration's bill that in some areas make it look more like a trail of compromises with special interests than a plan which can best protect the health of the American people.

I hope to get some answers from Administrator Reilly today about the Administration's proposal on motor vehicles. After studying the bill, I know why Ford Motor Company wrote to tell me it had actively worked to obtain co-sponsors. I do not, however, understand why this Administration would advocate such a bill.

The Office of Technology Assessment, in a report released last Thursday, concluded that the measures proposed in this Committee's bill would achieve as much as 55 percent more reduction in emissions from motor vehicles than the Administration's bill.

I have heard from groups and governments across a wide spectrum with a similar analyses. They are sending a forceful meassage to Congress that the President's Clean Air Act falls far short of providing the tools needed to fight smog. For example, the North Central Texas Council of Governments wrote to me that the Administration's bill would increase emissions of hydrocarbons, nitrogen oxides and carbon monoxide by 25, 17 and 26 percent from current levels. They asked me to advocate that all new cars sold nationally "have standards more stringent than those currently required in California.

Seven Northeast air commissioners have concluded that the Administration's bill could result in a relaxation of current standards by as much as 50 percent. These commissioners are so frustrated with the lack of federal action and leadership in the smog area that they recently acted on their own to adopt the California motor vehicle standards.

Commissioner Jorling of New York has testified that if the federal government does not act to impose very strict motor vehicle standards, he may be forced to take extreme actions such as restricting the use of older vehicles on the road.

Unfortunately, the emissions from cars remain, by far, the single biggest source of urban smog. The Office of Technology Assessment report shows that, even after application of all known controls to all sources, cars and trucks will still be the largest contributor to smog. We are becoming a nation smothered in cars; the number of cars and the number of miles which cars travel are expected to increase by 40 to 60 percent in the next 15 years.

That is why the Senate bill mandates that the automakers do everything that is currently being done in California (and will be done in the Northeast states) and also requires that the automakers, like other polluting industries, continue to do better than they have in the past. We ask more of American business and the

American public than the President has asked, because we believe Americans are willing to do more to get rid of air pollution.

My second major concern with the Administartion's bill centers on the amount of discretion given to EPA. It is not simply that we have no guarantee that men like Bill Reilly will run the Agency. It is a deeper concern. I fear that history has shown that EPA as an institution, when provided with discretion on whether or not to act, becomes either inhibited or, at worst, paralyzed—overwhelmed by interest groups on all sides. We in Congress need to help EPA by clearly stating and defining its authority and responsibilities because paralysis of action simply is unacceptable when the public's health is on line.

I look forward to a dialogue on these issues with Administrator Reilly.

Senator BAUCUS. Thank you, Senator.

In order of appearance, let me read the list. It's Senator Durenberger, Senator Graham, Senator Breaux, and Senator Lautenberg. So next, Senator Durenberger.

OPENING STATEMENT OF HON. DAVE DURENBERGER, U.S. SENATOR FROM THE STATE OF MINNESOTA

Senator DURENBERGER. Mr. Chairman, I'm going to submit my opening statement for the record. I'm going to summarize four points and ask the Administrator a question.

The four points in the opening statements are my impression of the deficiencies in the current clean air act. First is in the State planning process. I think we've been over that a lot. And I think the bills before us have an important innovation. And I'm talking about the ozone nonattainment legislation. The important innovation in shifting from an exclusive focus on demonstrating attainment to a focus on regular reductions. And I don't think there's a lot of disagreement on that being a substantial improvement.

The second shortcoming in existing law has been the tools for the planning process. We've used emissions inventories and air quality models in all of our previous rounds and they've all been deficient, and I think we've tried to cure those deficiencies in our legislation.

The third problem, more difficult, is that's the resource problem, people and dollars, and we have stationary source emissions fees, and auto registration fees, but I don't think by themselves they really do the job of providing adequate funding for the Federal part of what we're proposing.

And the fourth is the lack of Federal follow-up, and the Chairman of the subcommittee has already referred to that. I've only been here since 1983, and so I lived through the brown out period and the whatever it is we've been living with. And I don't like to hear people say that my ozone legislation is not tough enough, just because I tried to find a middle ground that will actually pass. But I realize that normally we are forced to be tougher in one way or another than maybe we would like to be. And that's one of the reasons that the legislation that this committee has proposed on nonattainment is going to be criticized as being too prescriptive. We just have to sit here and pray that this is not the brown out period and that future Administrations are not going to need to be pushed quite as hard. But I'm afraid the legislation is going to be fairly prescriptive.

Those are four concerns I have. The question I'd like you to address, Mr. Administrator, when it comes your turn, even if we passed all the toughest language in the nonattainment bill, we're still going to have some major metropolitan areas that aren't going to make it. The Administration bill says that we should fill that gap with alternative fuels, and Joe Lieberman and I and a few others say we ought to fill it with transportation controls. And one of the things I've observed by sitting on both this committee and the Finance Committee is that we're kind of chicken on this committee to deal with the issue of alternative fuels, whether it's because we don't understand it, or we don't always make the right comparisons, this committee is a little chicken about the alternative fuels issue. And yet, much as I believe in what Joe Lieberman has suggested to us on the transportation control issues, I think it's a tough load on employers, it's a tough load on communities, but I don't like to look at that all by itself as the place to fill the gap either. So I would be hopeful, Bill, that either in your comments today or as we approach nmworking on this legislation that you could kind of help guide us through this gap to some balance, if you will, between transportation controls, which we very much need. I mean, we can't just say it's the automobile industry's problem, because they've helped us cure 99 percent of the problem already but they've also produced so many automobiles that the problem is not the cleanliness of the automobiles, it's the quantity and our inability to deal with their concentration in some areas. So, I would be hopeful that during this process you can help this committee, in particular, deal with some balance between the issue of alternative fuels and transportation controls so that we can get some of those things that Joe has suggested to us, and the important things that the Administration has offered us by way of alternative fuels.

I would venture to say that one of our problems here is we always compare alternative fuels as an alternative to existing combustion systems. And what I'm trying to suggest by my question is, we ought to compare them with transportation controls, and think about them in that kind of context, and maybe with those kinds of comparisons in mind as we work our way through this bill you can be helpful to us in getting us more involved in properly utilizing alternative fuels and transportation controls.

[Senator Durenberger's prepared statement follows:]

OPENING STATEMENT OF HON. DAVE DURENBERGER, U.S. SENATOR FROM THE STATE OF MINNESOTA

Mr. Chairman, I would like to make a few comments on the ozone nonattainment legislation which is pending before the Subcommittee.

It is quite clear that the current provisions of the Clean Air Act have not worked to assure attainment of the ambient air quality standard for ozone. During the especially hot summer of 1988, about 100 cities across the country exceeded the ozone health standard. Many exceeded the standard for 10, 20 or 30 days during that summer. The ozone problem has been getting worse, not better, in most of our cities.

The shortcomings on the Clean Air Act with respect to the ozone problem are now understood by this Subcommittee. I would mention four deficiencies in particular.

The first is the focus on attainment in the state planning process. We ask the States to prepare implementation plans demonstrating through air quality models that the standard will be attained at some distant date. The structure of the planning process invites abuse. States underestimate growth before the planning horizon. They underestimate the emissions reductions necessary to attain. They overestimate the effectiveness of control strategies. They backload control requirements scheduling them just before the attainment deadline. And ultimately, because it is only a plan, they fail to implement the requirements as promised.

After two cycles of the planning process, I am pessimistic about the whole notion of State implementation plans. But I do think that the bills before the Committee include an important innovation to overcome some of the difficulty. That is the shift from an exclusive focus on demonstration of attainment to a focus on regular reductions in the emissions inventory. We will still require attainment demonstrations, but in the interim we will also demand a 3 percent or 4 percent per year reduction in VOC emissions.

The second shortcoming is to be found in the tools for the planning process. Emissions inventories and air quality models used in previous rounds of planning have been seriously deficient. For example, running losses which may make up 30 percent of the VOC inventory in some cities were only recently discovered. And we have not given the States sufficient time to prepare good plans. Those deficiencies will be corrected by the bills before us.

A third problem has been resources—people and dollars to prepare and implement plans at the state level. And people and dollars to oversee the process at the federal level. The planning process cannot be fixed without the resources to do the job. We must not do again what we did in the Water Quality Act of 1987—add significant new elements to an environmental program without the resources to carry them out. Among the most important provisions in the Senate nonattainment bill are the stationary source emissions fees and the auto registration fees. They will raise significant dollars for State programs. But we have yet to assure adequate funding for the federal part of this effort.

The fourth problem with the existing Clean Air nonattainment program is the lack of Federal follow-through. This past decade has been a nightmare for many of the programs at the Environmental Protection Agency, but no where was it worse than in the nonattainment program.

In 1982, several dozen cities failed to meet the ozone standard as had been required by the 1977 amendments. At first EPA proposed to institute the construction ban in all of those cities. But after a hue and cry went up across the land, EPA backed off. Instead it required each city to submit a new plan that would demonstrate attainment by a later date. And every city did. But do you realize that EPA has not approved or disapproved a single one of those plans. The Agency took no action on these proposals. About 40 revised Clean Air plans, not implemented for lack of federal follow through.

Other Federal steps that might have been helpful . . . new CTGs, choosing between on-board and Stage II controls, enforcement of RACT requirements on existing sources . . . were put off for nearly a decade. The legislation reported by this Committee is often criticized as too prescriptive. But everyone knows that it gets shaped that way in response to a real problem, the failure of federal follow-through during the Reagan Administration. Maybe, that problem is now behind us, but its shadow will certainly be seen in the nonattainment bill reported by this Committee.

Mr. Chairman, those are four procedural problems which have hindered attainment of the ozone standard . . . cheating on the attainment demonstration with no objective measure of interim progress, poor inventories and models used in a planning process compressed by unrealistic deadlines, too few people and dollars to plan and implement, and a lack of federal follow-through.

We cannot attain the ozone standard without fixing these deficiencies. They are procedural. They aren't as sexy as the tailpipe standard or an alternative fuels program. But they are the building blocks of the Clean Air nonattainment program and must be addressed by the Subcommittee. We've made a good start on correcting these procedural problems in your nonattainment bill, Mr. Chairman. We must keep our eye on these issues as the process moves forward.

Senator BAUCUS. Thank you, Senator.

Next on the list is Senator Graham.

OPENING STATEMENT OF HON. BOB GRAHAM, U.S. SENATOR FROM THE STATE OF FLORIDA

Senator GRAHAM. Thank you, Mr. Chairman. I appreciate you bringing these important issues before us, and particularly the opportunity to discuss them with our good friend and highly regarded colleague, Bill Reilly.

I wish to commend the Administration for its early drafting and submission of this clean air legislation. We have not seen this level of environmental consciousness from the Administration for many years. It is our hope that this effort will not only signal progress in clear air, but also in a myriad of other environmental issues important to our Nation and to the world.

Mr. Chairman, I would just make two specific comments. One is that I hope that as we work through this process, that we would incline toward the use of performance rather than process standards. Frankly, we're in an area where there is a high degree of the unknown. I believe that the best approach that we could take would be to establish what end results we want in a performance sense, and then look to the innovation and creativity of those who will be involved in actually meeting those standards. It's been my sense that there's been a tendency for the Congress to pass operating manuals rather than laws in the environmental area. I believe that has in part been a function of the lack of confidence in some of the previous administrators of EPA. Now that we have an administrator in whom we have such great respect, this would be a time to demonstrate that by a different approach to how we legislate.

Second, it's important to separate environmental and health issues from economic cost allocation issues. In the final analysis we will have to deal with both, but let us be clear when we are in which column. I share the sentiments expressed earlier that our basic approach should be one of neutrality and then allowing the marketplace and other forces to decide which alternative options will best get us to our common destination.

Mr. Chairman, I look forward to hearing the remarks from Bill Reilly.

Senator BAUCUS. Thank you, Senator.

Senator Breaux.

OPENING STATEMENT OF HON. JOHN BREAUX, U.S. SENATOR FROM THE STATE OF LOUISIANA

Senator BREAUX. Thank you, Mr. Chairman. Thank you, Mr. Reilly, for being with us. I'll be brief.

I think that so many of our concerns with the legislation and the direction that it is attempting to go really is based on past history. There's no doubt that you have really been handicapped by the sins of the past, when we in the Congress try to legislate in such great detail to make sure you don't do anything that some other group did for the last eight years. When you look at the last Administration's handling of section 112 listing of the toxics and only get eight in 18 years, you can understand why the Congress is saying, well, we're not gong to give them that flexibility any more. We're going to tell them exactly what they have to do and when they have to do it. I'm a little concerned that that perhaps is not the best way to legislate. But I think it's going to really be up to this Administraton and your agency to show the Congress that you can be trusted, that there can be some flexibility that you will have in determining what needs to be done and when it needs to be done.

I'm hopeful that we'll be able to reach that point. I appreciate the bipartisan approach that apparently abounds in this committee, although I'm the only Democrat to support your bill. I don't know how much bipartisan support we have to start with, but I think it's a good starting point. I think it has to be improved upon, and I look forward to working with your folks in achieving that goal.

Thank you.

Senator Baucus. Thank you, Senator.

Last on the list is Senator Lautenberg.

OPENING STATEMENT OF HON. FRANK R. LAUTENBERG, U.S. SENATOR FROM THE STATE OF NEW JERSEY

Senator Lautenberg. Thanks very much, Mr. Chairman.

I, too, am pleased to see that we're holding this hearing today. It's difficult when the people at the witness table are those for whom we have so much respect, the Administrator, Bill Reilly, and the Assistant Administrator, Bill Rosenberg, that we're going to have to find a way to get through what we think is an inadequate answer to fighting the clean air problem. For eight years Bill Reilly was doing the fighting against the White House stone wall. And Bill Reilly helped to tear that wall down, and I commend you for that as I did at the time of your first appearance before this committee.

The responsibility has now shifted to you, to adjust the Administration proposals where they fall short on the nonattainment problem. I think it falls short on fighting air toxics. The President said he wants to cut airborne toxic emissions by three-quarters within this decade. And he said that people living near industrial facilities shouldn't have to fear for their health. We agree with that. The problem is that the bill doesn't seem to match the pledge. The bill fails to regulate all industrial sources of toxic emissions. It fails to mandate action to address mobile and area sources of pollution, which account for 75 percent of all toxic emissions. The bill also, I think, abandons public health as a standard. It lets the cost outweigh the health factors. It leaves EPA to search for a standard without establishing a benchmark for determining what's an unacceptable risk to human health. It also falls short in requiring EPA to act to protect the environment from toxic emissions. And finally, it doesn't do must to protect us from chemical accidents.

With that encouragement, Mr. Reilly, I look forward to discussing the issues with you, and working with you in adjusting what might be a shortfall, in my view, and to help develop the kind of strong clean air legislation that both of us will be satisifed with.

Thank you, Mr. Chairman.

Senator Baucus. Thank you, Senator.

Mr. Reilly, we're honored to have you here before us today. As you know, I called you a week or two ago and asked if you could be the lead-off witness for our hearings. You had a scheduling conflict at the time with the President, but this is the next best date we could find, as early as we could possibly give you, and I want to thank you for working with us and my office in trying to find a mutually acceptable scheduling date.

We're honored to have you here and look forward to hearing your views now as they stand at this time.

STATEMENT OF HON. WILLIAM K. REILLY, ADMINISTRATOR, ENVIRONMENTAL PROTECTION AGENCY, ACCOMPANIED BY WILLIAM G. ROSENBERG, ASSISTANT ADMINISTRATOR FOR AIR AND RADIATION; AND ROB BRENNER, DIRECTOR, OFFICER OF AIR POLICY, AIR AND RADIATION

Mr. REILLY. Thank you very much, Mr. Chairman. With your permission, I'll ask that my full statement be included in the record, and I'll rely on a number of charts to present a less lengthy one. I'm accompanied here, as you know, by William Rosenberg, the Assistant Administrator for Air and Radiation, and Rob Brenner, Director of the Office of Air Policy, Air and Radiation.

In my confirmation hearing some eight months ago, probably no issue received the attention and concern that the clean air issue did. And at that time I was able to commit the Administration to promise to present clean air legislation to this Congress just as soon as we could possibly do that. And we gave it our highest legislative priority. We recognized that this committee has had innumerable hearings on clean air. It has exhaustively reviewed the options and the issues. We have profited very greatly from this Committee's experience and from its deliberations and its ideas. And I think that more than anything else what the bills pending before you on clean air suggest is how the debate has increasingly focused. The gulfs have begun to close, and with respect to all but a few issues we are relatively close together.

I appreciate very much the opening statements that you and your colleagues have made. I want to promise that we will work very carefully with you, and members of the committee, on achieving what you have, I think, quite properly recognized as a very historic opportunity, the opportunity to get this Country new clean air legislation, after 13 years now since we visited this act.

I'd like to begin by referring to a series of charts. I regret that others cannot see, but I trust that the members of the committee can see those charts. The charts highlight some features of the President's bill.

We are, first of all, making a proposal that is comprehensive. It addresses acid rain and promises a ten million ton reduction in sulfur dioxides by the year 2000. It not only makes the commitment, but it commits, as Senator Lieberman recognized, to hold that reduction with a permanent cap on SO_2 emissions.

On nonattainment we have what we consider a very ambitious measure that would bring 120 of the 124 areas of the United States that are now in nonattainment into compliance with the health standard for ozone—all but four of them by the year 2000, and the remaining four no later than 2010.

On air toxics we propose to reduce very substantially the public health risk from emissions of airborne toxic chemicals. And measures not just in the air toxics portions of the legislation, but in the mobile sources portion, as well, address this problem.

Finally, we have some tough new penalties for violators and a new permit system to propose.

The President's Bill: An Aggressive & Innovative Approach to Achieve Clean Air

- **Acid rain**
  - Achieves a permanent ten million ton SO_2 reduction
- **Nonattainment**
  - Brings 120 of 124 cities in attainment by the year 2000
- **Air toxics**
  - Reduces public health risk from emissions of airborne toxic chemicals
- **Enforcement**
  - Tough new penalties for violators

Mr. REILLY. Let's look at the next chart, please.

For a long time it has been said by some that we don't know enough about acid rain to pass legislation. We disagree. From years of scientific research—expensive and carefully designed studies, as Senator Moynihan pointed out—we know that acid rain has damaged not hundreds but thousands of lakes and streams both in the United States and also in Canada. We know that acid rain is responsible for fully half of the haze, the visibility impairment that hangs over the eastern United States, and that it seriously degraded the experience of visibility in some of the nation's crown jewels—some of its great national parks, such as the Grand Canyon.

We know that acid rain damages buildings and monuments. We know that acid rain impairs tree species and weakens our forests. And, finally, scientists have long been concerned over studies linking aerosols to damaged respiratory function in children and even to excess deaths.

In the face of this research and in the face of what we now know, the President has concluded the time for study, along, is over now. Now is the time for action.

Acid Rain: A Serious Problem

- **Thousands of lakes and streams in the U.S. and Canada damaged or threatened**
- **More than 50% of Eastern visibility impairment due to SO_2**
- **Damage to buildings and monuments**
- **Forests threatened**
- **Human health at risk**

Mr. REILLY. Let's look at the next chart.

And so the President's bill is an aggressive response to this problem. On acid rain, it is a tough bill. It gets a full 10 million tons of SO_2 out of the environment each year. It gets an additional two million tons of nitrogen oxides out. And not only does it get the full ten million tons of SO_2 with all that represents for allowing ecosystems, lakes, and streams to begin to recover, but it holds those emissions down by capping emissions growth of SO_2 permanently into the indefinite future.

In soliciting advice from members of this Committee and others, we were frequently advised to look for least-cost solutions. Well, we did. We propose to rely on market incentives to an unprecedented degree. I think that is a very important, fundamental innovation in this legislation. We will set the goals, as is the function of government to do, but would propose to leave to utility plant managers the precise decisions about how to meet those goals. We estimate that this approach can cut a full 20 percent—or close to $1 billion—off the cost of achieving acid rain controls.

We also were advised to make this bill fair. Don't make areas that have already cleaned up pay yet again for others to clean up. Well, we don't. There is no free lunch. The bill is expensive. But it is fair. It's polluter-pays legislation, and consumers of power in each State will typically be asked to bear clean-up costs that are proportional to their contribution—the contribution that their utilities make to sulfur dioxide emissions.

Finally, our analysis shows that the bill does not impede economic growth anywhere—more about that later.

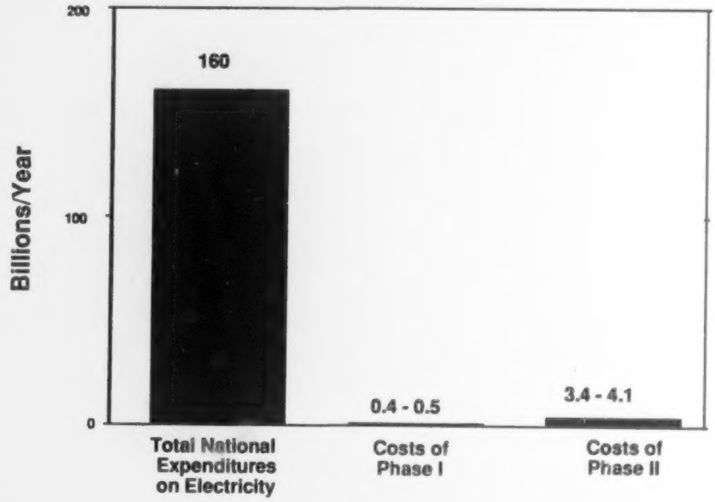
The President's Bill
An Aggressive Response

- Environmentally sound
- Lowest cost
- Fair to those who have cleaned up in past
- Allows unconstrained Economic Growth

Mr. REILLY. Let's look at the next chart.

The bill will add less than 3 percent to the national cost of electricity. In that left column you see total expenditures the Nation makes of $160 billion for electricity. In the year 1995, as our program comes in, we estimate the cost per year of phase I of $400 million to $500 million. And when the program is fully mature—2000 or thereabouts, depending on the deferrals that may be taken advantage of for clean coal technology—we estimate the full cost of our acid rain provision at $3.4 to $4.1 billion per year. This adds less than 3 percent to the national cost of electricity, and I recognize that substantial variation can exist around this number from utility to utility. The only point that I would make is that significant electricity rate increases—10 percent or more—will be the rate exception rather than the rule.

The Bill Adds Less Than 3% to the National Cost of Electricity

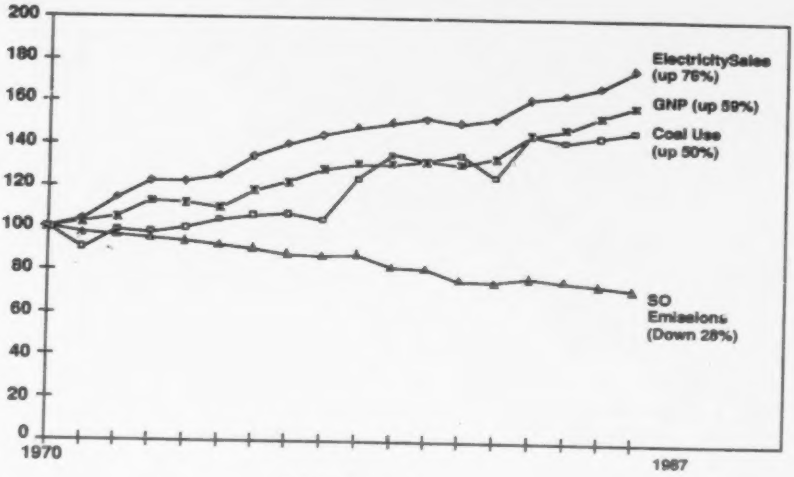


Mr. Reilly. Let's look at the next chart.

I think that this chart is a very interesting and important illustrative chart for many aspects of our environmental problems, and it has particular relevance to our acid rain control proposals. There are four lines on this chart, and it reads back from 1970 to 1987. The top line shows that electricity sales during that 17-year period went up 76 percent. During that same time, gross national product increased 59 percent. Coal use during that 17-year period went up a full 50 percent, and, even so, sulfur dioxide emissions went down 28 percent.

This country consumes 72 percent more energy per capita than the Federal Republic of Germany, and twice as much energy as Japan. We can do better. We can do considerably better without hobbling our economic performance or our competitiveness or our productivity.

A Clean Environment Does Not Mean Less Economic Growth



1970 = 100

Mr. Reilly. Let's look at the next chart.

We recognize that nonattainment is a very serious problem in our urban areas. There are 101 areas that are in nonattainment for ozone, another 44 in nonattainment for carbon monoxide. A full 135 million people are affected by this problem. The health of these people is particularly effected in children and the elderly and those with lung and heart disease, which make them most at risk.

These problems have defied solution, in part, because they are closely linked to the pace of our economic activity and to the style of life that we have—our tradition of dependency on automobile transportation—which has made this historically a particularly difficult problem which we propose to address by giving it the priority it deserves.

Nonattainment
A Serious Problem in Our Urban Areas

- **101 ozone nonattainment areas**
- **44 CO nonattainment areas**
- **135 Million people affected**
- **PM_{10} - an emerging problem**
- **Worst effects on children, elderly, and those with lung and heart diseases**

Mr. Reilly. Let's look at the next chart.

Our proposals on nonattainment are innovative, aggressive, and workable. We propose to set the country on a course toward introduction and use of alternative fuels that promise vastly reduced pollution per vehicle. We propose to encourage market incentives on the part of the energy and automobile industries to achieve some of these pollution reductions and to make choices among fuels, provided we get the pollution gains that we need.

The bill is aggressive. All four of the areas in nonattainment will achieve by the year 2000, and the remaining four by 2010. There are strong sanctions. There is tough enforcement of this bill. It is balanced and comprehensive. It provides national measures for mobile sources and control technique guidelines and reductions in fuel volatility. It provides Federal mandates for steady progress with measurable goals and realistic sanctions. An it provides for considerable State and local discretion as to the choice among approaches and emphasis for pollution sources.

It is workable, we think. We've got a revamped State implementation process with comprehensive new air pollution permits. The dates and the controls in the bill are tailored to the severity of the nonattainment problem an area has.

Nonattainment Proposals are Innovative, Aggressive, & Workable

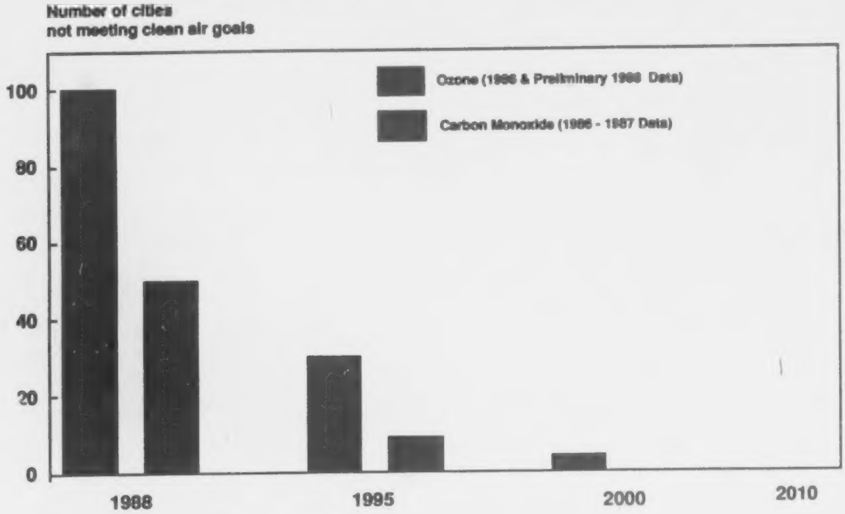
- **Innovative**
    - Alternative fuels
    - Market incentives
- **Aggressive**
    - All but four areas attain by 2000
    - Strong enforcement, tough sanctions
- **Balanced/Comprehensive**
    - National measures
    - Federal mandates
    - State/local discretion
- **Workable**
    - Revamped SIP process with permits
    - Dates, controls tailored to severity

Mr. REILLY. Let's look at the next chart.

This chart illustrates the effectiveness of the nonattainment proposals that we are making. You see in the black column on the left the number of cities not meeting our clean air goals for ozone. In the next column, for carbon monoxide. From 1988 to 1995—that number had decreased very sharply. In the year 2000 there are no areas still not attaining for carbon monoxide, and very few for ozone.

By that period, even those communities that still have not attained—New York, Chicago, Houston, and even Los Angeles—will have reduced their emissions of volatile organic compounds—the precursors to ozone—by a full 60 percent under our legislation. And in the year 2010, we expect to have solved this problem.

Nonattainment Proposals are Effective



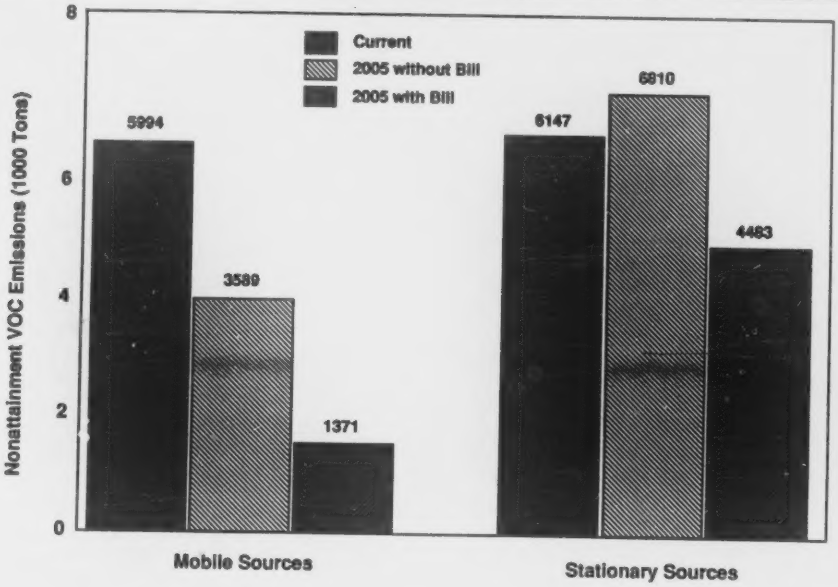
Urban Air Quality Benefits

Mr. Reilly. Let's look at the next chart.

The proposal has a major impact on emissions of these volatile organic compounds. You see here in the left black column the current situation—about six million tons of VOCs from mobile sources; a little over six million tons from stationary sources at the current time.

In the year 2005, without our legislation, without action to deal with this problem, the mobile source contribution to VOCs will come down to 3.6 million tons. The stationary contribution to the problem will actually go up about 11 percent without our legislation. With our legislation the contribution of mobile sources of cars and trucks will come down a full 77 percent by the year 2005, and stationary sources will be down 37 percent. That's almost an eight million ton reduction of VOCs in that period—a very significant achievement.

The Proposal Has a Major Impact on VOC Emissions

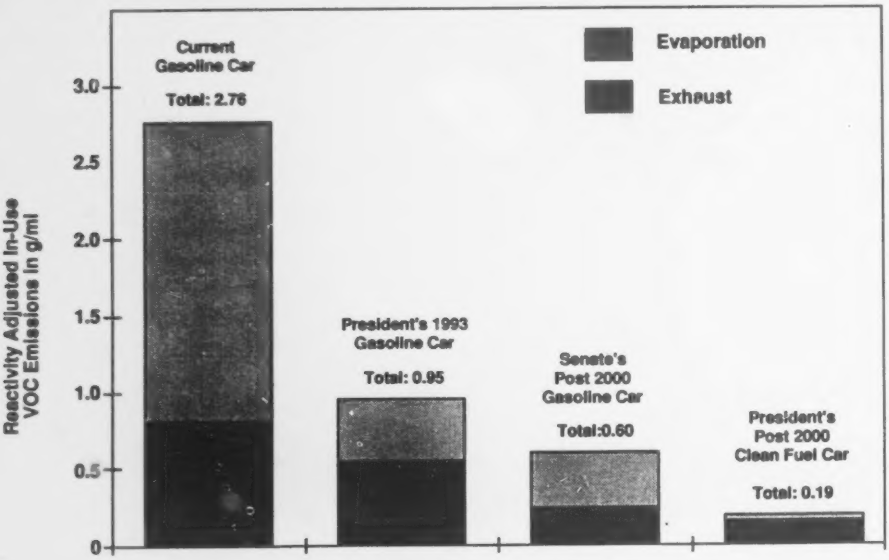


Mr. REILLY. Let's look at the next chart.

With respect to per car emission, this chart indicates the contribution in grams per mile of VOC emissions of the current gasoline car. You see it is 2.76. The President's proposal would bring this down, beginning in 1993, to 0.95. That's from 2.76 to .95. The Senate's bill, S. 1630, would bring down emissions, with its post-2000 gasoline car and the emissions tailpipe reductions that are proposed in that legislation, to 0.60. In the President's clean fuel vehicle in the post-2000 period, the reductions would be vastely more—a full 93 percent from the current gasoline car, down to .19 from any of the three or four alternative fuels that we are currently looking at and hoping to discuss with you this morning.

In other words, we get a much larger reduction from alternative fuels than virtually any configuration of tailpipe reductions, and we get them more cheaply.

The President's Proposal Greatly Reduces Per Car Emissions



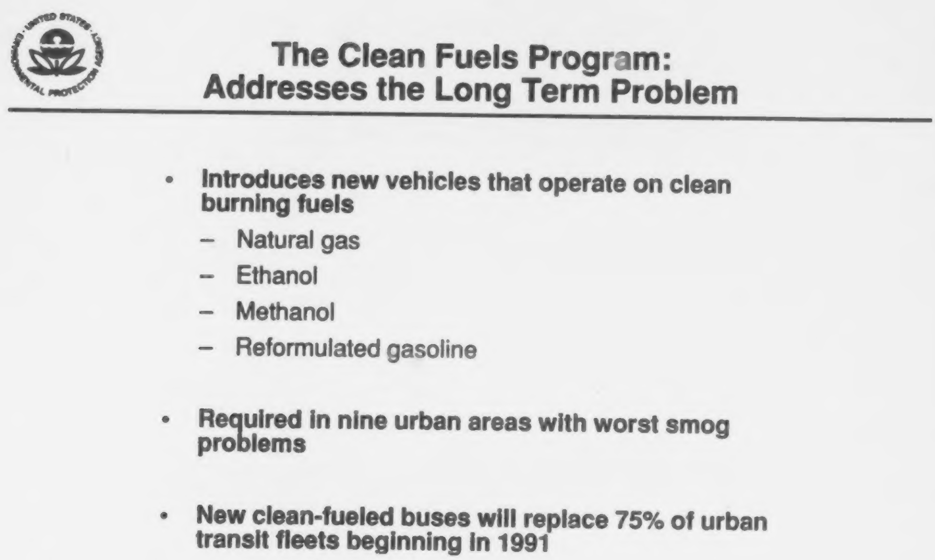
Mr. Reilly. Let's look at the next chart.

The clean fuels program is intended to address the long-term problems we are dealing with. We are proposing to introduce new vehicles that operate on clean-burning fuels such as ethanol, methanol, compressed natural gas, or reformulated gasoline. The Administration is fuel neutral on these measures. It is not of interest to us to make a selection among these fuels; we merely wish to ensure that the fuels chosen get the pollution reductions that are required.

I should point out that several of these fuels are not exotic. They are already in use in Europe or South America, or even in California. They would be required in the urban areas—the nine of them—with the worst smog problems. We want very much, by this measure, to create a sufficient market to bring them on. This is more than a demonstration program, in our opinion. to bring them on effectively, it has to be.

The proposal would also require that, beginning in 1991, 75 percent of our urban areas with bus fleets would have to bring on clean-fueled buses, and that would address something of the problem that Senator Moynihan was describing a little while ago.

The clean fuels provisions, the alternative fuels provisions, are not in the Senate bill. I think that is unfortunate. I think they can make a significant contribution to helping solve this problem, and I would very much encourage the committee to take another look at that part of the issue.



The Clean Fuels Program: Addresses the Long Term Problem

- **Introduces new vehicles that operate on clean burning fuels**
  - Natural gas
  - Ethanol
  - Methanol
  - Reformulated gasoline
- **Required in nine urban areas with worst smog problems**
- **New clean-fueled buses will replace 75% of urban transit fleets beginning in 1991**

Mr. Reilly. Let's look at the next chart.

Our air toxics proposals deal with history. They deal with what we think we have learned from the experience under section 112, the current air toxics provision of clean air legislation. We have learned from the shortcomings of current law, and so we propose to shift from the painstaking and time-consuming pollutant-by-pollutant approach and to focus on industrial sources. We propose to combine a requirement of new technology in the first phase and to move to a health-based approach to look at the risk that remains after maximum achievable control technology will have been introduced.

We proposed to review a full 191 pollutants. We have a very stringent definition of maximum achievable control technology for new sources. The bill states that it "shall not be less stringent than the emission control that is achieved in practice by the best controlled sources." And for existing sources, MACT "shall be at least as stringent as the emission controls achieved in practice by the best controlled similar sources."

The mandate that we apply MACT to a full 50 percent of the sources is intended to get at a very substantial amount of the risk. We estimate 90 percent of the risk will be eliminated as a result of that concentration of effort.

Air Toxics Proposals are Streamlined and Aggressive

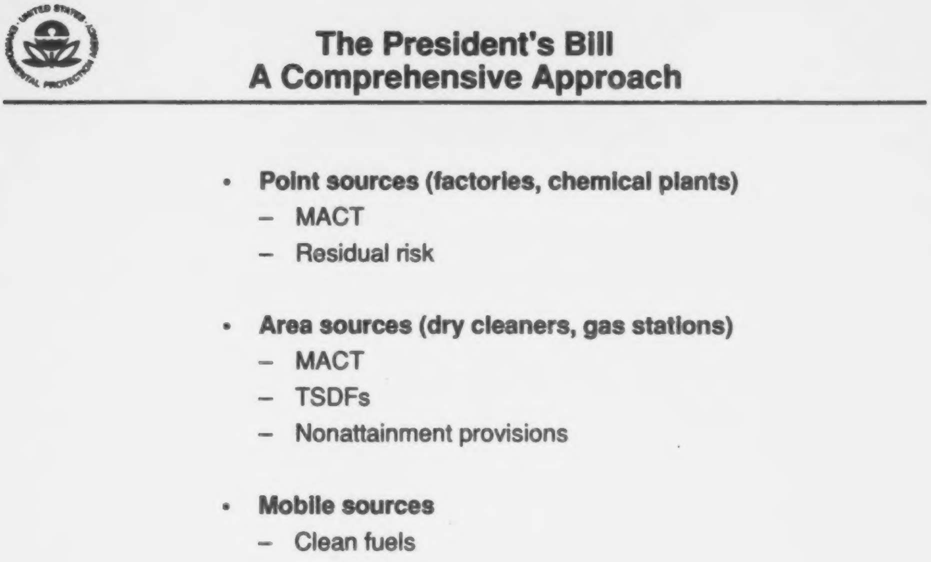
- **Streamlined**
  - Shifts focus to sources
  - Combines technology and health based approaches
- **Aggressive**
  - Reviews 191 pollutants
  - Stringent definition of MACT
  - 50% mandates reduction of most of risk
- **Workable**
  - Recognizes linkage among titles
  - Has real and realistic deadlines

Mr. REILLY. Let's look at the next chart.

I mentioned that the air toxics approach of our legislation is a comprehensive approach. Our air toxic strategy is not confined to the air toxics title. We propose to address point sources, factories, chemical plants, and expect to eliminate 75 to 90 percent of emissions and a full 90 percent of the risk from these sources in the first phase. We then propose to address residual risk with respect to those sources.

As far as area sources are concerned—dry cleaners, gas stations, and the like—we are proposing attention to them, as well—particularly through the nonattainment provisions we will pick up more reductions.

Finally, our clean fuels proposal will give us fuels that are in the range of 90 percent freer of toxic problems than currently formulated gasoline is.



The President's Bill
A Comprehensive Approach

- **Point sources (factories, chemical plants)**
  - MACT
  - Residual risk

- **Area sources (dry cleaners, gas stations)**
  - MACT
  - TSDFs
  - Nonattainment provisions

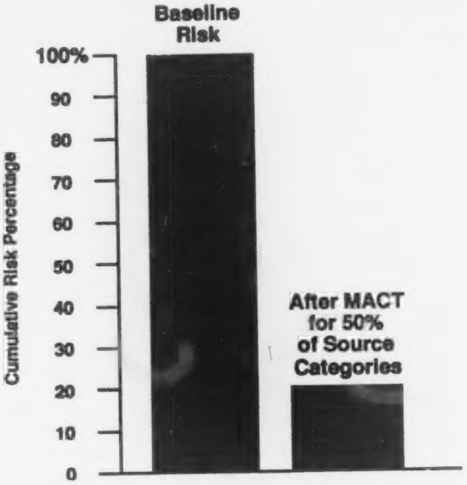
- **Mobile sources**
  - Clean fuels

Mr. REILLY. Let's look at the next chart.

This chart illustrates the drastic reductions of risk that we propose to get from emissions from stationary sources. After the applicaion of maximum available achievable control technology of source categories, we expect to see that risk drop by a full 80 percent as a result of our legislation.

I want to make clear here that the agency will review all of the sources categories—not just 50 percent of them—listed as part of this bill's requirements. This has always been the intent of our legislation. There has been some doubt on it and, therefore, we have not had a clarification introduced in the House substitute, H.R. 3030, which makes that explicit.

Mandated Technology Standards Drastically Reduce Risk and Emissions from Stationary Sources



Mr. Reilly. Let's look at the next chart.

I want to conclude by noting two major features of this bill that may receive less attention and attract less attention and perhaps be a little less glamorous than some of the other measures that we are proposing. We are planning to introduce comprehensive air pollution permits integrating all titles on our bill. All of the requirements affecting a particular source would be included in such a permit, which would have the advantage of simplifying quite a lot—the job of determining and of helping the public to determine exactly what is required of a source. We believe this also is likely to make the job of enforcement less complex and more efficient.

Permitting/Implementation
Making the System Work

- Permits integrate requirements under different titles
- Streamlined process
- Provides adequate resources
- Enforceable by state and federal

Mr. Reilly. Let's look at the next chart.

Finally, we have introduced a number of measures and proposed a number of measures that would improve and strengthen enforcement. We propose to enhance criminal enforcement with longer prison terms and higher fines. We would propose to provide for an easier commencement of civil actions and assessment of administrative penalties. We would provide, under certain circumstances, for on-the-spot citations and fines, and provide enhanced authority to do such things as prevent criminal violators from receiving any unrelated Federal help—Federal contracts, loans, grants, and the like.

Strong Enforcement

- **Enhanced criminal enforcement**
  - Longer prison terms
  - Higher fines
- **Easier commencement of civil actions**
- **Administrative penalties**
- **On the spot fines**
- **Enhanced authority to prevent criminal violators from receiving federal contracts, grants or loans**
- **Operating permit program established**

Mr. REILLY. Mr. Chairman, you and the other members of this committee have frequently called for presidential leadership on clean air. Your opening statements—all of them—are terrifically encouraging. You have called attention to the serious need to revisit a bill that has achieved a great deal for our country in health protection over the past 13 or so years since it was last reauthorized, but a bill that is now no longer adequate to the nation's air quality needs.

The President, I think, is now providing the leadership that you have asked for. I think the nation has an historic opportunity. We're not so very far apart on many of the issues of concern. And we very much hope that the Clean Air Act can be on the President's desk for signature, as he has expressed his hope that it will be, no later than January 1, 1990, to make 1990 the decade of clean air.

I very much look forward to answering your questions and to working with the committee in the months ahead to try to ensure that the promise of all of the effort that has gone into these various measures is fully realized.

Thank you, sir.

Senator BAUCUS. Thank you very much, Mr. Administrator. I think your final remarks are appropriate. We are pushing in the same direction.

Sometimes when we focus on our differences we tend to forget that, by and large, we are more in agreement than we are in disagreement. We are moving ahead together to clean up the air, and I think you are very appropriate in setting that tone.

I am wondering, Mr. Reilly, if you have had a chance to see the OTA report which is dated September 21st analyzing some of the nonattainment provisions in the Administration's bill? In that report—again, you may not have had a change to analyze it yet—that report states that "in fact, H.R. 3030, depending upon the regulations, highway vehicle emissions could increase by about 5 percent over baseline estimates."

I wonder, first, if you have had a chance to see that report. And, second, what reaction do you have to that?

Mr. REILLY. Yes, sir. We have looked at that report and have a number of criticisms and things that we would fault in it. But, fundamentally, it has some misassumptions about how, in fact, we propose to proceed under the legislation. First of all, it makes an assumption that anything that the Administrator and the legislation contemplates doing, promises to do, but has discretion not to do, will not be done, which I think is an unreasonable assumption. It perhaps dates from concerns about past experience or distrust that has characterized relations before with the Environmental Protection Agency.

In any event, we have tried to address that problem by moving through the legislation in the House substitute to replace the troublesome word "may" wherever it occurs with "shall." And I hope that would be reassuring to those who doubt our intention to proceed with this whole range of very specific measures that we promise and publicly commit the President to go forward with.

The other principle assumption that is incorrect in the OTA analysis is its understanding of our proposals on averaging. We have, from the start, I think, been seriously misunderstood in the measure that we have proposed to allow automobile companies to average across engine families. It has been assumed that we would allow for full, fleet-wide averaging in a way that would remove the need for the automotive industry to require compliance cushions when planning to meet standards so as to avoid recalls.

We have always assumed that averaging means, in this legislation, precisely what it means in the way we currently administer it with respect to heavy-duty trucks; that is, we require each engine family to conform to a specific standard. In every case, those standards would be better than current performance. The average of all of those vehicles would have to conform to a standard that is 40 percent better than the current standard, and we are proposing to reduce the hydrocarbon standard from .41 to .25, and the compliance cushions to ensure that each engine family achieves those reductions would, of course, by the same rationale that currently requires them, have to be included as well. So we would get a full, genuine, 40 percent reduction in pollution.

Now, again, this has not been obvious to a number of people who have read the legislation, and so this has been made very specific and it has been made explicit in the legislation that we're talking about averaging by applying standards to engine families and not to fleets.

So I think that concern should be put at rest. If you make that assumption, then the OTA numbers are incorrect.

Senator BAUCUS. Well, essentially, as I hear you, what you're saying with respect to the OTA statement, specifically, as well as with respect to averaging, that it depends upon the assumptions one makes in arriving at those conclusions, and also it depends on how the discretionary authority of the administrator is actually exercised.

Mr. **Reilly**. It does not now, because the discretion under the substitute legislation in the House for H.R. 3030, would have made clear (as you know, averaging went down all together) but it made clear our intention to administer the averaging provisions in precisely the way I have described, and we'd be very comfortable to see it so defined in——

Senator **Baucus**. When I first asked you the question about the OTA's analysis you said that there are certain incorrect assumptions made. Well, why not mandate those assumptions that you are operating under?

Mr. **Reilly**. Well, why not? I think that's fine. We're perfectly prepared to see that happen. I think that by changing the verbs in the House legislation that has now been achieved.

Senator **Baucus**. Just so I'm perfectly clear, I'm not sure that you want to mandate all of the assumptions that the OTA was looking at in arriving at its conclusion that the affect of H.R. 3030 would be an actual increase in air emissions of 5 percent.

Mr. **Reilly**. We are prepared to mandate all of those additions to clean air that we have, in fact, publicly proposed ourselves and that are in the legislation but were not in the first version required by that term—the first version didn't have the verb "shall" as opposed to "may."

Senator **Baucus**. Are you opposed to House subcommittee action on averaging?

Mr. **Reilly**. Opposed to House action?

Senator **Baucus**. As I understand it, essentially to delete the averaging provisions in H.R. 3030.

Mr. **Reilly**. I would still defend averaging. I think averaging, as we have administered it with respect to heavy duty trucks, has been efficient. It has been effective at ensuring pollution control. It has saved money. It has possibly caused new technology to come on, in some cases, more economically than might otherwise have been the case. But we recognize the very strong concerns about it.

Senator **Baucus**. Why is averaging so necessary? Why not just have the performance requirements—tailpipe emissions requirements per car? Why is averaging so necessary?

Mr. **Reilly**. Well, if you hypothesize a group of vehicles, it may be much simpler and more straightforward when introducing a new engine technology to get significantly more pollution reductions even than perhaps are called for in a performance standard that is applied across the board. That being the case, the technology of the new vehicle might go down well below the hydrocarbon standard that we are proposing. And vehicles allowed to be kept on the road—larger vehicles, perhaps, that have not yet been phased out—that do not meet that new stnadard, by averaging you'd clearly save money. You allow the phase-out of some vehicles more slowly, but you still get the substantial reductions that are the consequence of one engine family going far beyond the proposed standard while another lags somewhat behind it.

Senator **Baucus**. Thank you. My time has expired.

Senator Chafee.

Senator **Chafee**. Thank you, Mr. Chairman.

Mr. Reilly, first of all, I want to congratulate you and the nature of your statement. I think you are exactly right that the President has done a wonderful job here, and I hope we can iron out whatever differences there might be. As I have said twice today, I hope that we can use the President's acid rain provisions for the markup vehicle when we deal with that section of it.

I'd just like to get back to the automobile situation, because obviously this averaging problem is one that makes a point of difference between us and maybe we don't thoroughly understand it.

It seems to me that—set aside the heavy duty trucks—proceeding the way you suggest it seems to me is more complicated—more complicated for everybody involved to have the different standards for each family of cars. Could you explain how I might be off base on that?

Mr. Reilly. I think averaging would be vastly more complicated and, in fact, would be extremely difficult to administer if it simply required an averaging across all automobiles be attained, as opposed to engine families.

But the proposal to have a particular standard apply to each engine family means that we will be able to test that engine, know precisely the standard that it is supposed to meet, and, if it fails in use to meet its standard, it will be subject to recall. There will be no doubt about it. There will be no balancing the numbers of cars at that time with other cars. We will have a specific numerical standard that either is achieved or is not achieved. So I don't think that would be more complex, though I agree that if you did not do it in that way it would be. And I think most people have been assuming that we would not.

Senator Chafee. Let me change to an area where I know you have a deep concern, and certainly I have, and that's in the whole global warming threat.

As has been pointed out, in our legislation we deal with carbon dioxide emissions and the tailpipe controls for that. Our bill we requires a 25 percent reduction in CO_2 from the fleet models for cars sold after 1995, and then a further reduction. And the estimates on these produce a clear reduction in the worldwide levels of CO_2, not only from the U.S. cars, but, it seems to me, that if we took this step it would encourage the foreign auto makers to do the same—particularly those that are large sellers in our market.

Now, can you comment on that? We'd like to get you aboard on that particular provision.

Mr. Reilly. Well, sir, as you know, I fully share your concern about global climate and the need to address it. There is simply no question but that some of those numbers I described about energy use and consumption in the United States vis-a-vis Japan and West Germany make clear we can do vastly better. We're going to have to do vastly better at conserving energy and using it more efficiently than we have as a society for many reasons, but not least among them to reduce the contribution that we're making—the fifth, or so, of the contribution—to greenhouse gases.

This proposal is, I suppose, in line somewhat with the concerns that you expressed some eight months ago about the CAFE standard. You encouraged me, and I have, in fact, supported an upward resumption of that standard, which Secretary Skinner did resolve——

Senator CHAFEE. I thank you for that.

Mr. REILLY [continuing]. Of 27.5 miles per gallon. It is something that makes sense and I am committed to.

I think we need to recognize, though, that the efforts that the Administration is currently engaged in to address the global climate issue are multi-national efforts. They are going to be very difficult, I think, given the slowness or reluctance of some countries to recognize even that they have a problem or that they should play some part in dealing with it. We are expecting to come up with a range of measures—first and foremost being the achievement of a framework treaty or convention on global climate—and to address the specific reductions that may flow from that that undoubtedly will be necessary in protocols thereafter.

Now, I think to the degree that we get before that process and begin to focus the debate either on targeted reductions now, on ambitious and—many would argue—difficult to achieve technological improvements of the sort that you are proposing, we possibly could risk sidetracking that effort and at least diverting some attention from it where we really think that the prime attention ought to be focused. That is our emphasis now.

Senator CHAFEE. My time is nearly up here. I appreciate the idea. What you are saying is that if we move ahead unilaterally we might foster multi-lateral actions. We always have to worry about that. However, with CFCs, clearly we are moving ahead far more aggressively than other nations are, and in legislation that came from the Administration.

But I'm not sure that I totally agree with your suggestion that if we go too precipitously too hastily then we give the other nations a great excuse not to do anything. That's sort of the gist of what you're saying, isn't it?

Mr. REILLY. Well, it's not precisely correct to say that we're moving on CFCs outside the international context. The president has proposed full phase-out of CFRs, but within the process that has been established for the Montreal protocol. That is, we're laying our proposal on the table. We very much hope and have been encouraged to believe that other countries will follow suit and do the same thing. But we need to do it as a world community lest any reductions we make, at whatever expense and sacrifice, are offset by other countries that just pick up and begin to manufacture and trade in those substances.

Senator LAUTENBERG. The Sentator's time is up.

Senator CHAFEE. My time is up. Thank you.

Senator LAUTENBERG. Thank you very much.

Senator Lieberman.

Senator LIEBERMAN. Thank you, Mr. Chairman.

Mr. Adminstrator, I appreciate the words that you spoke about the enormous energy consumption in this country and the impact that has on our environment. I share that concern, and I share particularly as it relates to what we're talking about here today in the Clean Air Act. It is mixing metaphors, but when I think about what we're trying to do with the automobiles, it does seem to me that we're running faster and faster and all we're doing is staying in the same place because the cars get cleaner, but we buy more cars and we travel more miles with every car.

Clearly, one of the things that we're going to have to do, in addition to making the cars cleaner, in all fairness to all concerned, is to figure out a way to get Americans, if not to break their love affair with the automobile, to at least dampen some of the ardor of that particular romance.

I invite your consideration of the transportation control measures that are part of the committee's bill, and also particularly invite your response and any other suggestions that you may have. I look forward to working with you and your team to see if we can't help with that part of the problem, as well.

Mr. REILLY. I look forward to that as well, Senator.

On the transportation control issue, we would expect that any number of areas could not really satisfy their attainment objectives and meet the terms of the steady progress required under our law without imposing some kind of transporation control requirements.

We don't propose to specify what those are. I don't personally think that the history of transportation control plans at EPA has been a notable success.

Senator LIEBERMAN. I agree.

Mr. REILLY. But we are prepared to work with localities and fully contemplate that, just as in places like Los Angeles, as they have already recognized, and other places, as well, some measures of this sort are going to be necessary. They are going to be necessary to meet our own bill.

Senator LIEBERMAN. I agree with you, and I hope we can work together on that in this bill and in the years ahead, because to me—and I'm sure to you—it is critical to dealing with the clean air problem. Otherwise, we're just going to keep asking more and more of the automobile manufacturers, and the air is not going to be much cleaner if we keep driving more cars.

Somewhat related to that, a point of inquiry on the bill is the decision that the Administration made—which is different from the one the committee made—to not require cars to meet standards up to the 100,000 miles, but to stop it at 50,000. Our concern here is that cars are on the road beyond the 50,000 miles. The emission control systems tend to deteriorate further on, and this will frustrate our ability to clean up the air. Why did you make that decision not to go to the 100,000?

Mr. REILLY. The development of the legislation required any number of choices and trade offs, and we were concerned to solve the problem. We set that as the principle objective starting out: solve the problem of clean air. And I think the bill proposes realistic means and realistic time tables to do that.

We do so in any number of ways. Many of them are ambitious, and quite a few are expensive. The President's proposed legislation would cost between $14 billion and $19 billion a year in new costs to be borne by the consumer. We had to make the cut somewhere in terms of measures that we thought unnecessary to get us to the final goals that we selected. And we made it before we got to extended useful life. I recognize that extended useful life does get you an added increment of pollution control. The tailpipe reduction standards get more. They do so at very considerable cost, however, and, as a whole, I think the bill does address the problem—and address it very ambitiously and very seriously and, unfortunately, but necessarily, very expensively.

Senator **LIEBERMAN**. Again, I appreciate the directness of your answer. As I hear it, you are saying that clearly to go to 100,000 miles would help clean the air, but that essentially you had to rank the priorities of remedial steps and relate them to their cost, and this is the balance that you struck.

Mr. **REILLY**. Yes.

Senator **LIEBERMAN**. Clearly, I think we on the committee reached a different alternative, and I hope we can keep your mind open on that as we go forward, because I do think it is a critical part of the equation.

Another omission that I want to ask you about is: what is the basis of the decision that the cars would never have to meet the NO_x standard that is currently being met by cars in California? I think you probably know that the recent OTA report concluded that NO_x controls can be very critical in reducing ozone—this theory about a mixture of chemicals in the air.

Our own State DEP in Connecticut thinks it is very important to air quality in Connecticut, so I was troubled by essentially the lack of strong Federal help for the States on NO_x controls and want to ask you why you reached that decision.

Mr. **REILLY**. We do propose a substantial reduction in NO_x. Our proposal would reduce the tailpipe standard for NO_x from 1 gram per mile to 0.7 grams per mile. That's a 30 percent reduction. It will make a difference in some areas. We recognize California has a special NO_x problem. There are some areas where actually reducing NO_x exacerbates the ozone nonattainment concern. It isn't clear to us that moving to 0.4, which again adds considerable expense, is necessary for the rest of the country in the way that it is for California.

I would point out that we also propose to get a significant amount of NO_x reduction from the acid rain provisions of the legislation—about two million tons there.

So I think we are strong and aggressive on NO_x. Going beyond that level does entail very considerable expense, however.

Senator **LIEBERMAN**. My time is up. Thank you.

Senator **MOYNIHAN**. Thank you, Senator Lieberman. Senator Lautenberg, I believe you are next on the agenda.

Senator **LAUTENBERG**. Thank you, Mr. Chairman.

Mr. Reilly, when a motor vehicle carrying toxic chemicals is involved in an accident, an independent National Transportation Safety Board investigates the accident and makes recommendations to DOT, which can adopt regulations to prevent similar accidents from occurring.

Is there any difference between health threats posed by chemical accidents occurring on motor vehicles compared to those occurring from industrial sources?

Mr. **REILLY**. Well, I think that as far as the industrial sources are concerned, we have full authority, certainly within the agency, under laws we administer—particularly CERCLA—to investigate and require available information on releases, to assess the adequacy of controls and thinks of that sort, as things now stand.

Senator LAUTENBERG. You have the authority, but I question why it is that it wouldn't be a good idea, as we have proposed, to have a permanent board that reviews these things. EPA estimates that there have been over 300 deaths and roughly half a million people evacuated from chemical accidents. At least 17 chemical accidents posed greater threats by EPA reviews, I think, than the Bhopal accident had. In view of these kinds of figures, why shouldn't we have a permanent, independent board to investigate chemical accidents?

Mr. REILLY. Some of the amendments that we have endorsed in the House, Senator, contain accidental release provisions that are very close, I think to what you are proposing and that we would support. Some of the amendments introduced last week would require EPA to promulgate, within three years, reasonable regulations and appropriate guidance to provide for the prevention and detection of accidental releases into the ambient air.

Your legislation would require that each site at which a listed substance is present has to submit a hazard assessment one year after the substance is listed.

I think that it is——

Senator LAUTENBERG. It is fair to say it wouldn't be too troublesome to review that further before the notes are passed out.

Mr. REILLY. I think that we would be more comfortable with a permanent investigative board within the agency. I suppose that is the distinction.

Senator LAUTENBERG. We're not talking about macro differences here, I don't think.

Mr. REILLY. No.

Senator LAUTENBERG. I have confidence in your judgment and your candor on such things where we can have a serious discussion, and I know Bill Rosenberg. So we'll leave that for the moment.

Your bill sets up a process whereby a commission is established to deal with ozone transport. The Northeast and Mid-Atlantic States have already had an Ozone Transport Commission for a year and a half. The commission sent you specific recommendations for emission control measures in ozone transport problem regions, and I wonder why these recommendations were not incorporated in your proposal.

Mr. REILLY. I'm afraid you've got me there. I'm not familiar with the proposals that they've made.

Senator LAUTENBERG. Reportedly they submitted them to you in writing some time ago.

Do we have a date?

Mr. Administrator, somewhere around the beginning of the summer the commission got a response from you saying that you'd be looking at it. If you could trace the paper flow there, I'd appreciate it if you could get back to me on that.

Mr. REILLY. We'll be glad to do that. We have consulted with the Northeast States about the Regional Transport Commission that we had proposed. We'll talk about that, as well, with them.

Insert page 62

cc BCi

NORTHEAST STATES FOR COORDINATED AIR USE MANAGEMENT
(NESCAUM)

MEMBERS:

CONNECTICUT AIR COMPLIANCE UNIT
MAINE BUREAU OF AIR QUALITY CONTROL
MASSACHUSETTS DIVISION OF AIR QUALITY CONTROL
NEW HAMPSHIRE AIR RESOURCES DIVISION

NEW JERSEY DIVISION OF ENVIRONMENTAL QUALITY
NEW YORK DIVISION OF AIR RESOURCES
RHODE ISLAND DIVISION OF AIR RESOURCES
VERMONT AIR POLLUTION CONTROL PROGRAM

20 JUL 1989

475-9766

July 20, 1989

Mr. William Reilly, Administrator
U.S. Environmental Protection Agency
401 M Street, SW
Washington, DC 20460

Dear Mr. Reilly:

The Regional Ozone Transport Group was organized by the U.S. Environmental Protection Agency in August 1988 to provide a forum for federal and state environmental officials to discuss the dimensions of regional oxidant transport in the northeastern United States and to explore potential abatement mechanisms. The Transport Group has been chaired by the U.S. EPA's Assistant Administrator for Air and Radiation and consists of the Regional Administrators from U.S. EPA's regional offices in Philadelphia, New York City, and Boston, as well as state Environmental Commissioners from Massachusetts, Connecticut, New York, New Jersey, Pennsylvania, and Maryland.

Over the past year, the Transport Group has made substantial progress in understanding the magnitude of the Northeast ozone problem, recognizing the multitude of sources located in a broad geographic area which contribute to this problem, and developing a conceptual approach to attaining the ozone health standard throughout the Northeast. At the July 14, 1989 meeting of the Regional Ozone Transport Group, the state representatives from Massachusetts, Connecticut, New York, New Jersey, and Pennsylvania expressed strong support for the ozone strategy set forth in the enclosed document entitled "Program Concepts for Northeast Ozone Attainment" and requested that I forward it to you for consideration in formulating ozone transport provisions in the Administration's Clean Air Act proposal. Maryland representatives expressed general support for this approach to reducing ozone in the Northeast and opted to continue their evaluation of the strategy proposal. In light of the Administration's on-going efforts to formulate a Clean Air Act proposal, the EPA Transport Group representatives have appropriately abstained from considering endorsement of this ozone strategy.

The enclosed concept paper for Northeast Regional Ozone Attainment recommends that states in the region implement all currently available control measures, that the U.S. EPA expedite implementation of available federal control measures, and that the states and U.S. EPA jointly administer an intensive assessment program designed to provide the basis for a second phase of appropriate control measures which will ensure that the ozone standard is attained and maintained throughout the Northeast. The state Transport Group representatives believe that the formulation of this approach to the Northeast ozone problem is a major accomplishment and is confident that the Administration will seriously consider the recommendations embodied in this document.

MICHAEL J. BRADLEY, EXECUTIVE DIRECTOR
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BOSTON, MASSACHUSETTS 02114
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Printed on Recycled Paper

The progress that the Regional Ozone Transport Group has made to date is due in part to the contributions from U.S. EPA Headquarters and Regional Office representatives. Furthermore, the U.S. EPA technical staff managing the Regional Oxidant Modeling for Northeast Transport project deserve to be commended and supported for their successful and continuing efforts to address their rather aggressive schedule. The states look forward to future Regional Ozone Transport Group meetings to continue their valuable discussions on both ozone policy and technical related issues.

Sincerely

Michael J. Bradley

Michael J. Bradley
Executive Director

Enclosure

c: W. Rosenburg, EPA AA
D. Clay, EPA AA
L. Carothers, Commissioner, CT DEP
D. Greenbaum, Commissioner, MA DEP
T. Jorling, Commissioner, NY DEC
C. Daggett, Commissioner, NJ DEP
A. Davis, Secretary, PA DER
M. Walsh, Secretary, MD DE
M. Deland, EPA I RA
W. Muszynski, EPA II, Acting RA
E. [illegible]son, EPA III RA
NESCAUM Directors
J. Hambright, PA DNR
G. Ferreri, MD DE, AMA
G. Emison, EPA OAQPS, Director
J. Calcagni, EPA OAQPS
D. Tyler, EPA OAQPS
G. Drumond, OPPE
L. Gitto, EPA I
C. Simon, EPA II

AX 892660

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

AUG 16 1989

OFFICE OF
AIR AND RADIATION

Mr. Michael J. Bradley
Executive Director
Northeast States for Coordinated
Air Use Management
85 Merrimac Street
Boston, Massachusetts 02114

Dear ~~Mr. Bradley~~: Mike

This is in regard to your letter of July 20, 1989 to Mr. Reilly. That letter transmitted the Northeast Regional Ozone Transport Group concept paper making recommendations on the Clean Air Act. As you know, on July 21, 1989, the President announced his Clean Air Act proposals. You will be pleased to note that most of your recommendations were incorporated to some degree in the President's package. I recognize that this has not just been fortuitous but rather the result of a lot of hard work and cooperation between the Northeast States and the Environmental Protection Agency's professional staff.

I look forward to working closely with the Northeast States as we move forward in getting the Clean Air Act amended and implemented.

Thank you for the insightful suggestions and recommendations.

Sincerely,

William G. Rosenberg
Assistant Administrator
for Air and Radiation

Senator **Lautenberg**. Okay. According to EPA, area and mobile sources result in 75 percent of all the toxic emissions. The Administration bill gives EPA the discretion to determine whether to address these sources. Why shouldn't the Congress mandate that the agency respond to such a large portion of the air toxic program?

Mr. **Reilly**. We have agreed to do a study, Senator, and to regulate those in the amendments.

Senator **Lautenberg**. The Administration does not give EPA any authority to regulate air toxics emissions because of the environmental effects. And yet we are all aware that air toxics are a significant problem in the Great Lakes region. According to an EPA draft report, air emissions may be an important source of toxic pollutants in estuaries and coastal waters. Why shouldn't EPA be required to regulate air toxic emissions to protect the environment?

Mr. **Reilly**. Well, we're proposing, Senator, to require maximum achievable control technology to address these toxics. We will assume that we will get very substantial reductions in the Great Lakes area, as elsewhere. I mentioned the risk reduction we anticipate from those of 80 percent. To the extent that there remains a problem out there at that point, we will look at available alternatives and move still further. But that undoubtedly—and I know what you speak of; we've seen that something between 75 to 90 percent of the PCBs in Lakes Michigan and Superior got there apparently as a result of air transport. Those would, we would expect, be addressed in very significant measure by these technology requirements in the first phase of our air toxics bill.

Senator **Lautenberg**. My time is up, Mr. Chairman. Just a word in closing.

So the focus would be primarily on a health standard and coincidentally or concurrently achieve reductions that might affect the environment. I think that's a proper establishment of priorities. But I don't want to eliminate the opportunity to protect the environment, which may, in some cases, be the thing that is affected the most because of either remoteness of areas or things of that nature. I appreciate it.

Mr. Chairman, thank you very much.

Mr. **Reilly**. Could I just add, Senator, the language does permit us—the language in our provisions—to consider those impacts. But I think that the measure we've got does direct our attentions to the largest part of the problem in the most comprehensive way by simply focusing on technology, getting a very substantial risk reduction, and getting it straightforwardly, without having to march pollutant by pollutant through the whole list, as we have had to do and have done very unsuccessfully under section 112.

Apropos the Great Lakes, we do have in mind an assessment of Great Lakes issues. I met yesterday with the Prime Minister of Ontario on toxic hot spots in the lakes. We are associated with a report that is going to be released in mid-October on that very issue in the Great Lakes, and very much have it in mind and want to see it addressed.

Senator **Lautenberg**. Thank you very much.

Senator **Baucus**. Thank you very much, Senator.

Senator Jeffords.

Senator **Jeffords**. Thank you, Mr. Chairman. I certainly share Senator Chafee's enthusiasm about the Administration's proposals and hope to move forward and work with you to try and make sure we can reconcile our differences, which aren't anywhere near as many as those things we agree on.

I may be in a substantial minority of the committee with respect to this—I hope it is a substantial one—that does feel that it is important to look at alternative fuels as well as the automobiles, etc. It seems to me there are two purposes for that: one is to reduce imports, and the second—more pertinent here—is to have cleaner air.

I was one of the strong proponents of alternative fuels in the House, and also a strong critic of the synthetic fuels proposal because it tries to mandate a supply where there was no demand. I believe very strongly we had to create or make a demand.

I note in your proposals for alternative fuels that you create a demand by requiring that areas that need to reduce pollution must be by buses that use clean fuel. On the other hand, your proposal for automobiles is to create a supply. How do you anticipate getting a demand? In other words, you build a million automobiles, and you're going to have serious problems with that proposal if you don't have the fuels available that are usable in those automobiles, and you're going to have a problem with respect to the cost of the ability of people to use them if you don't have a mandate of some sort.

I mention that because a proposal I had in the House which, at one point, was part of the Energy and Commerce Committee's bill, was to require the gasoline companies, etc., to mix and to, therefore, create a demand by increasing ethanol and methanol in particular—anything else that they could find that was usable—until such time as you've gone up to 10 percent, and then you would have a demand, and then you could perhaps shift over to automobiles that would use that alternative fuel.

I would appreciate your comments on how you anticipate getting people to buy the alternative fuel vehicles if there isn't some sort of an economic reason for doing so.

Mr. **Reilly**. Senator, the whole question of how you move the country toward cleaner fuels has been one that has been characterized as a chicken and egg problem in the sense that, as you point out, when you bring a new technology on or require automobile companies to manufacture cars capable of using clean fuels, you've got to ensure that the fuels are, in fact, out there when the cars come on line, and vice versa—the cars to use the fuel, if you require that of the oil industry.

We do, in fact, propose to require both the automotive industry and the energy industry that they work together—and there will have to be some resolution about technology and fuels and mix and so forth—by the time that this measure comes on in 1995 when a half million automobiles must be flexible fuel vehicles—that is, must be capable of using either gasoline or an alternative fuel. But at that time the energy industry and also the automotive industry will have the obligation in the nine areas where we propose to see these fuels introduced to provide the automobiles and also provide the fuels.

We had some experience with that, I should point out, in the case of lead removal from gasoline and catalytic converters where the converters wouldn't function with leaded fuel, and the unleaded fuel had not been made available and wasn't there before the catalytic converters came on. We did, in fact, obligate both industries in the way I described and, I think, had experienced one of the most successful air pollution victories of virtually any in the agency's history, getting something like 98 percent of ambient lead out of the air.

Senator **Jeffords**. That's a different situation, and I would take it, from what you're saying, is that then you would be mandating that people must buy these cars within those certain designated areas? Why would you buy a car unless there was an economic reason for doing so? So far as I have seen, we haven't seen any alternative fuels that have come out that would be price compatible or give you an incentive to purchase such an automobile. Why would I buy it?

Mr. **Reilly**. We estimate that these automobiles' prices will be roughly similar, will be compatible with other vehicles when they come on, and we are preparing a report on that issue and will share it as soon as it is available.

We would expect, however, that incentives of a whole variety of sorts, whether of pricing or advertising, would be relied upon to ensure that those minimum obligations of sales of alternative fuel vehicles—flexible fuel vehicles that can use both gasoline and the alternative fuel—do come on in the time frame and in the numbers required.

Senator **Jeffords**. But would that work if you don't have a fuel that is cost competitive?

Mr. **Reilly**. We estimate that the fuels will be competitive, as well. We've just completed an extensive analysis of methanol in the State of California. I think the Energy Resources Board has done one, as well. We are encouraged to believe that the fuels will be under a number of assumptions quite close and competitive with gasoline.

Senator **Jeffords**. Thank you, Mr. Chairman.

Senator **Baucus**. Thank you, Mr. Jeffords.

Senator Moynihan.

Senator **Moynihan**. Thank you, Mr. Chairman, I have just two brief things. One, I'd like to say that the administrator, Mr. Reilly, mentioned the catalytic converter—one of the true achievements of the EPA and of this whole field. I can relate a story there.

The converter was produced in about 11 months by the Corning Glass Company in Corning, New York. The engineers can really be proud of themselves. They took this thing which couldn't be done, and in 11 months they figured out how to do it. One of the lead engineers on the job showed me a little display they have of how this went about in the history of engineering. It's pretty nice stuff.

He described how the chairman of the board—or a chief executive—of one of the big three automobile companies from Detroit came through Corning and they showed him how this could be done. And he made his way directly from there to a committee of the United States Congress dealing with this subject and informed the committee that it could not be done. That was typical of the automobile industry in those long years when they were asleep and the Japanese were eating their lunch, as we learned. It would be like how to lose laws, customers, and markets.

One of the things is different, though, as Senator Jeffords was saying, on alternative fuels. I'd just like to record that last week I had a visit from three New York groups, and they were not inconsiderable—Brooklyn Union Gas, and the people that provide most of the fuel for the Buffalo area—which is, of course, on the Canadian border. They want to go to alternative fuels for their buses. They want to do it. All they ask is that the natural gas arrangements which they are tending toward be at a—what our distinguished member, Senator Chafee, likes to call it—level playing field with methane.

I understand that you have so stated in your opening remarks, and I thank you for it. It is nice when the people who are actually going to do these things come along and say we want to do them, just let us do them at the level of best efficiency and best product.

Mr. REILLY. Yes, sir. I should emphasize we are entirely open to the choice of fuels that is made. We are very concerned here with performance. The performance we are looking for is pollution reduction.

There has been some concern about whether we were as open to reformulated gasoline as perhaps to some of the other alternatives that we have discussed, and the answer is we are. We didn't hear much about it in the course of the work since, and I think probably the emphasis in the——

Senator MOYNIHAN. Reformulated gasoline?

Mr. REILLY. Yes, sir. That would be designed to remove the toxics and reduce the aromatics and get us the VOC reductions and hydrocarbon reductions that we see as possible under these other fuels. If we can meet the kinds of ambitious pollution reductions that our research indicates can be met by alternative fuels, we're entirely open to that. And that is a decision that is down the road.

Senator MOYNIHAN. And good for you. The thing is to let engineers and chemists get to work. You never know what you may end up with. Just tell them which way to go, but don't get in their way. I thank you for that.

Mr. REILLY. Well, I believe very strongly that the emphasis in the legislation on alternative fuels—and really would signal this to this committee—has had a great deal to do with the attention that the energy industry and the automotive industry have given over the past few months—an unprecedented amount of attention, as far as I am aware—to getting fuels that are cleaner and to looking at the way of relating them to any new technology and long-term plans. It has been good pressure. It has had a good result. However we finally go on our choice of fuels as a country, I think it is a goal that we should keep out there, and I very much hope that your committee bill will do that.

Senator MOYNIHAN. And I think so do we all, sir.

I thank you, Mr. Chairman.

Senator BAUCUS. Thank you, Senator.

Mr. Reilly, I'm just curious why in your judgment, as representative of the Administration, you believe we should not address NO_x controls; that is, both hydrocarbons and nitrous oxides, as we all know, are the precursors of ozone. We also know that there are some natural hydrocarbons produced. There are no natural nitrous oxides produced—they are all man-made. Yet, they both contribute to ozone, not exactly on a 50/50 basis, but not too far off the mark.

Since all NO_x are manmade, why don't we try to address NO_x?

Mr. **Reilly**. Well, we are trying to address NO_x, and I think in a pretty ambitious way. When you propose a measure to reduce the NO_x pollution from vehicles by 30 percent, I think that is a significant reduction. When you propose a two million ton reduction in NO_x from utilities, from power plants, that is a significant reduction. We recognize that it is an important precursor to ozone, and our proposal would make a very significant difference in that.

Senator **Baucus**. Do you address NO_x from stationary sources in your bill?

Mr. **Reilly**. The utility part of the NO_x problem we certainly do. Yes, sir.

Senator **Baucus**. But do you from industrial sources, though?

Mr. **Reilly**. Well, industrial sources, in any number of areas, will not find it possible to—the areas, themselves, will not find it possible to meet the annual 3 percent reductions in volatile organic compounds without imposing additional NO_x controls on stationary sources. So the answer is yes.

Senator **Baucus**. Why should the burden of proof be on the States to show they need NO_x controls?

Mr. **Reilly**. Well, we are, by the national measures we are proposing, relieving quite a lot of NO_x—two million tons from the utilities, another 300,000 or 400,000 tons from the automobile NO_x tailpipe standard reduction. That's quite considerable.

If it is necessary for areas to go further than that—and it certainly will be in some. California has a well-known severe NO_x problem—then we would truly expect and, in fact, require that they go further. But that may not be true for all, and certainly is not true for all areas in nonattainment.

Senator **Baucus**. It is true that California does have a NO_x problem, and it is documented in California. I know some are concerned about not having the models developed and not enough empirical data. But California does have empirical data.

It just seems to me at this point when we are trying to enact a Clean Air bill that we should as aggressively as possible—certainly reasonable, but still as aggressively as we can, within reason, address NO_x control. We have a responsibility at this point to address NO_x controls.

Mr. **Reilly**. That's the reason that California does have a different standard on NO_x from the rest of the country, and it makes very good sense for them to have it. They've got a special problem.

Senator **Baucus**. But the problem is: in the Administration's bill there are no net NO_x reductions in the bill—in the acid rain bill.

Mr. **Reilly**. In the acid rain bill there are two million tons of reductions over the projected levels in the year 2000.

Senator **Baucus**. But no net reductions.

Mr. **Reilly**. It is a significant reduction over what NO_x emissions would have been in the year 2000 without those controls. It is not a net reduction in the same way that we are getting a net reduction in sulfur dioxides. That's correct.

Senator BAUCUS. That's correct.

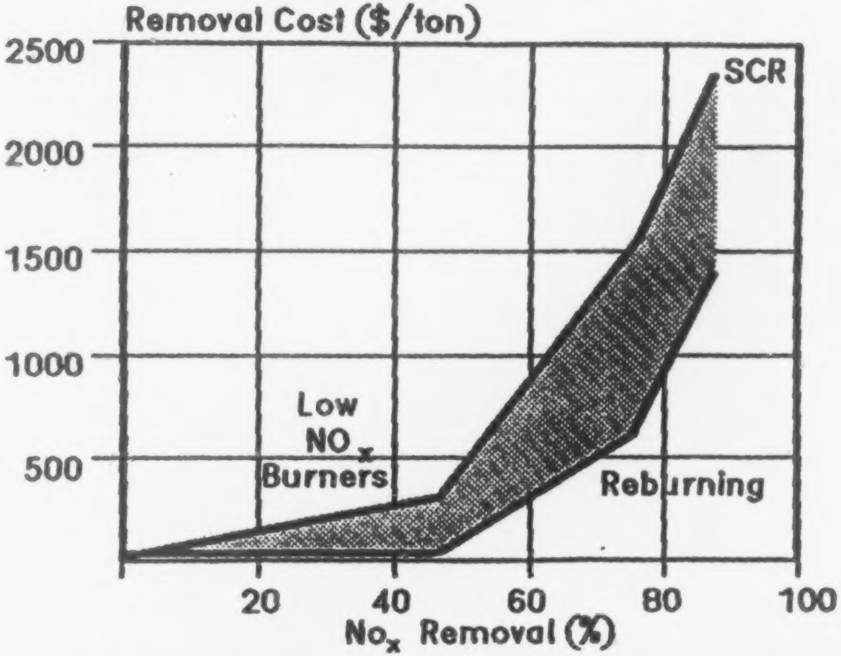
Mr. REILLY. If you go beyond the two million ton reduction which is achieved under our legislation by the low NO_x burners being applied to those boilers that conform to them that are suitable for them, you find that the costs of NO_x reduction rise very sharply and you see a very significant increase in the cost of this measure that, in our view, is unjustifiable.

Senator BAUCUS. Could you document that for this committee please—that last statement? Because that would be helpful. That's not in my understanding, frankly. I'd like to see your evidence of that. That would help this committee.

Mr. REILLY. We will do that. We will provide that analysis.

[The information requested follows:]

PROJECTED RETROFIT NO $_x$ CONTROL COSTS



Testimony to

Subcommittee on Energy and Power
Committee on Energy and Commerce
U. S. House of Representatives

by

Kurt E. Yeager
Vice President, Coal Combustion Systems Division
Electric Power Research Institute
Palo Alto, California

June 22, 1988

- Establish a joint federal and state government commitment fostering clean coal technology as a prudent investment in the national interest, and remove governmentally imposed disincentives to their use. This is essential to the accelerated application of clean coal technology by the regulated electric utility industry. Specific recommendations in this regard have been developed by the President's Task Force on Regulatory Relief.

- Permit the broadest possible averaging of emission reductions consistent with the achievement of environmental quality goals. On a national basis, the actual cost savings achievable through a state-wide emission bubble versus, for example, a unit-by-unit emission cap for the same level of emission reduction can be as much as 50%. An important component of this savings is the expanded flexibility to utilize innovative clean coal technology.

- Recognize the cost-effectiveness sensitivity of increasing levels of emission control. This is particularly pronounced in the case of NO_x control where the cost of innovative combustion modification is on the order of $200 per ton of NO_x controlled while post-combustion selective catalysis reduction technology can exceed $2000 per ton of NO_x controlled.

In summary, the prompt and successful achievement of the advantages of innovative clean coal technology will depend on (a) stable environmental policies that enhance productivity as well as environmental protection (b) effective risk-sharing programs accelerating commercial maturation and (c) avoidance of counterproductive compliance schedules.

- Complete the on-going DOE co-sponsored ICCT Demonstration Initiative as planned. In industry where reliability is paramount, complementary demonstrations which map the envelope of application, i.e., address the range of designs, fuels, suppliers, and operating variables faced by the user are required to achieve confident and cost-competitive commercial applications as quickly as possible for the broadest possible market.

Table 2 outlines the various advanced clean coal technologies and summarizes their major risk factors which must be resolved through the demonstration process.

Three primary factors determine the timing for a program intended resolve these risks and to achieve commercial maturity for the technologies involved.

Technology	Capital Cost ($/kW)[1]	Net Cost Effectiveness ($/Ton SO_2 OR NO_x Removed)	Application: Retrofit	Application: Repower/New	Risk Factors
4. NO_x CONTROL					
a. Combustion Modification	5-35	100-1000	X	X	• Effects on carbon burnout, flame stability, slagging and corrosion
b. Post-Combustion NO_x Control	75-100	1000-4000	X	X	• O&M costs of catalyst replacement • Availability loss due to air heater cleaning
5. FLUIDIZED BED COMBUSTION					
a. Atmospheric	300-1600[2]	200-500[3]	X	X	• Capital and O&M costs of heat transfer surface and solids handling systems
b. Pressurized	800-1500[2]	200-450[3]		X	• Capital costs as per AFBC • O&M costs of sorbent utilization and gas turbine maintenance
6. INTEGRATED GASIFICATION COMBINED-CYCLE	1300-1900[2]	200-400[3]		X	• Capital costs of design conservatism • O&M costs of heat transfer fouling, refractory & sulfur recovery • Availability loss during startup

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[1] For an approximately 250-MW retrofit/repower unit to burn medium- to high-sulfur coal (2.5-4% sulfur). In 1986 dollars.

[2] Total installation cost range reflects repower and new applications.

[3] Net SO_2/NO_x control cost effectiveness based on fraction of total capital and operating costs assigned to emission control.

DRAF

NEW TECHNOLOGIES AND UTILITY EMISSIONS

FINAL REPORT

EPA Contract 68-01-7047

Work Assignments 48 and 87

Prepared for:

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January 1987

C. NITROGEN OXIDES ANALYSIS

1. Costs and emissions effects of introducing NO_x control technologies

Analysis of low NO_x burners was conducted separately. In the NO_x analysis, the most cost-effective control technology was selected for each coal-fired unit. Table III.5 summarizes the results of the analysis.

While stage-fired reburning could be applied to any unit, it was almost always the most costly. As a result, the low NO_x burners were selected whenever permitted by the technology applicability constraints.

Based on the applicability constraints provided, low NO_x burners for wall-fired and opposed-fired boilers could be applied to about 35 percent of the units representing approximately 40 percent of total capacity. This control strategy was highly cost-effective, however, achieving NO_x removal at an average cost per ton of approximately $95. When applicable, this was always the most cost-effective technology.

Low NO_x burners applied to tangentially-fired boilers achieved a market share of 29 percent of units and slightly over 42 percent of capacity. The average cost was about $240 per ton.

Finally, stage-fired reburning was, in almost all cases, the most costly technology. It had the advantage, however, of being

Table III.5

NOx Technology Results

Item	. . .Technology. . .			Totals
	Low NOx Burners	Tangential Fired Controls	Stage-fired Reburning	
Percentage of Units	35.3	28.6	36.2	100.0
Percentage of Capacity	39.9	42.3	17.8	100.0
Total Annual Cost (10^6 1985$)	95.0	223.0	875.3	1,193.3
NOx Removed (1000 tons)	1,005.3	946.0	646.3	2,597.6
Cost per ton ($)	94	236	1,354	459

Note: Results reflect implementation of the least cost NOx control technology on each coal-fired units subject to technology applicability constraints applicable to all coal-fired units. As a result, this technology was selected at about 36 percent of the units which represented approximately 18 percent of the installed capacity. This technology accounted for about 25 percent of total possible NO_x reductions, although at a cost of over $1,300 per ton. The high cost was primarily associated with the assumption made by EVA in developing the cost equations that substantial quantities of natural gas would be used in the reburning operation and that the gas would have a significant cost penalty relative to coal. As a result, reburning costs are highly sensitive to assumptions regarding fuel price differentials between coal and natural gas.

2. Market penetration factors

In this analysis, the penetration of low NO_x burners for all burner types was limited by the technology applicability constraints. Unlike the case with SO_2 there were no fuel switching options to be evaluated, nor was there a specific emissions reduction target by state specified.

PRELIMINARY ANALYSIS OF
THE MITCHELL BILL
(S. 1894)

Prepared for

The Environmental Protection Agency

by

ICF Incorporated

March 1988

20C0175

Appendix C

Utility NOx Reduction Requirements and Control Technology Assumptions for the Mitchell Bill Analysis

Title II of S.1894 has several nitrogen oxide provisions:

- A total national nitrogen oxide emission reduction goal of 4 million tons from 1980 levels by 1996
- A new NOx NSPS requirement established in 1991
- A state-by-state average NOx emission rate by 1996.

The bill does not state how the 4 million ton reduction should be allocated to each state. Furthermore, as noted earlier, the total four million ton reduction and non-utility NOx emissions were not analyzed.

However, state-by-state average NOx emission rates were imposed in this analysis. These emission limits were calculated for each state using an interpretation of the capacity weighted average formula suggested in the bill. The assumptions used for these calculations were:

Fuel	Boiler Bottom	Firing Type	Emission Rate
Coal	Cyclone, Wet	All	1.0
	Dry	Tangential	0.4
	Dry	Wall	0.5
	Stoker	All	0.4
Oil/Gas	All	Tangential	0.4
	All	Wall	0.5

All utility sources, were assumed to be required to meet these statewide annual average emission rates. Emission rate requirements at non-utility boiler sources were not assessed. A utility NOx NSPS of 0.5 lbs. per million Btu was assumed to be imposed for new plants.

Table C-1 presents the NOx control technology assumptions used in this analysis. All existing dry bottom coal-fired capacity was assumed to install NOx control equipment because of its relatively high cost-effectiveness. Furthermore, all new and future coal-fired capacity was assumed to comply with a new NSPS and install control technologies sufficient to reduce NOx emission rates at these sources to an 0.5 lb. NOx per million Btu rate (assumed new utility NSPS). If more controls would be required in a certain state for utilities to meet the average rate requirement, it was assumed that wall-fired oil/gas steam units would install controls, on the basis that such controls were incrementally the next most attractive NOx reduction option. In addition, certain cyclone and wet bottom coal units were assumed to use gas reburning to meet the average statewide NOx rates.

TABLE C - 1

NOx EMISSION RATES AND CONTROLS AT UTILITY POWERPLANTS

	Plant/ Fuel Type	Boiler Bottom	Firing	Uncontrolled NOx Rate	Control Technique	Controlled NOx Rate	Costs (mid '87 $) Capital ($/kw)	Fixed O&M ($/kw-yr)	Incremental Fuel Costs (mills/kwh)	Cost Per Ton Removed
Existing	Coal Steam	Dry Pulverizer	Wall	0.95	DMB	0.5	14.85	0.59	--	160
			Tangential	0.68	ENF	0.4	4.6	0.18	--	80
		Wet Pulverizer	--	1.55	GRB	0.93 1/	12	--	2.6	900
		Cyclone	--	1.68	GRB	1.01 1/	12	--	2.6	840
New/Future	Coal Steam	--	--	0.6 2/	DMB	0.5	14.85	0.59	--	720
	Oil Steam	--	Wall	0.45	LEA/OFA	0.32	2.97	0.24	--	390
		--	Tangential	0.28	None	0.28	--	--	--	--
	Gas Steam	--	Wall	0.53	LEA/OFA	0.32	2.97	0.24	--	170
		--	Tangential	0.26	None	0.26	--	--	--	--

DMB - Distributing Mixing Burner
ENF - Enriched Fireball
LEA/OFA - Low Excess Air/Over Fired Air
GRB - Gas Reburning

Note: Cost per ton calculations assume 50% capacity factor for oil/gas, 60 percent capacity factor for coal, 9 percent capital charge rate and conversion from mid-1985 $ to mid-1987 $ of 1.075.

Sources: LEA/OFA: 1983 Princiotta memorandum, reconfirmed in subsequent conversations with Dave Lachapelle of EPA.

DMB/ENF: Original Distributed Mixing Burner (DMB) cost assumptions (Princiotta, 1983) were adjusted: (1) controlled emission rates were increased from 0.4 to 0.5 based on recent test results, and (2) O&M costs were reduced by one-half to 4 percent of capital costs. Original Enriched Fireball (ENF) assumptions were also adjusted: (1) capital costs were reduced by about 22%, and (2) fixed O&M was set to 4 percent of total capital. These adjustments were the result of conversations with Dave Lachapelle of EPA.

GRB: An Electrical World (3/87) article and a report by the Gas Research Institute (GRI), "Reducing Pollutant Emissions: Gas Finds a New Niche," indicated that gas reburning (GRB) can achieve up to 60 percent removal if 15-20% of boiler fuel requirements are met with natural gas. Gas reburning capital costs were estimated at $12 per kw. Natural gas costs and coal costs vary over time and by region. Incremental fuel costs shown here reflect gas prices of $4/MMBtu (1995 EPA Base Case costs for Illinois) and $1.40/MMBtu for coal (thus, incremental fuel costs were $2.60/MMBtu). Further, the required rate of gas used was assumed to be proportionate to the percent reduction required. For example, 60 percent removal was assumed to require a 15 percent natural gas fraction of total fuel and 40 percent removal was assumed to require a 10 percent fraction (thus costing incrementally 2.6 mills/kwh). These assumptions were based on test results from pilot models of cyclone furnaces as performed by Babcock and Wilcox for GRI.

1/ Only certain cyclone and wet bottom boilers were selected employ gas reburning. The amount of gas reburning varied depending on the amount of reduction in NOx rates needed at these selected plants in order for utilities in that state to comply with the average NOx rate requirement.

2/ For bituminous and lignite plants only; subbituminous plants are already required to meet 0.5 lb. NOx limit. NSPS Subpart D plants which burn bituminous or subbituminous coal emit at an 0.7 lb. NOx rate.

Senator **Baucus**. Let's turn a little bit to nonattainment now on the tailpipe emissions. Studies show that NO_x and hydrocarbons will decline under current law to about the year 2000, approximately. After the year 2000, with increased miles traveled, and more people driving cars in our country, and also the useful life of a car lasting longer—people just keep their cars longer, on the average, than they did a few years ago—that emissions start to go back up again. NO_x and hydrocarbons start to increase.

And the studies that I have seen also show that if that trend continues, as is the case, it will decline to about the year 2000 and go back up. Even with the round one tailpipe emissions provided for basically in the bill, and even with the 9.0 vapor factor volatility, and even with on-board diagnostics, and with inspection and maintenance controls, still it goes back up—slightly, but goes back up—and only continues about level if we enact the round two tailpipe emission performance standards.

It seems to me that if that information is accurate we have some obligation to try to prevent an increase in NO_X and in hydrocarbons. That's one reason why I think we should seriously look at—in fact, as you know, the bill introduced does have a round two set of requirements—so that we can have a level rate of emissions; that is, no increase in the rate of emissions. I'd like you to comment on that, please.

Mr. **Reilly**. According to the information I have, Senator, that is not correct. Motor vehicle NO_X will continue down due to our standard—the reduction to 0.7 grams per mile, a standard for automobiles—and due, also, to the new, tighter NO_X standard for heavy duty trucks which is in an adopted rule that is going to take effect in 1991.

I should point out, though, that insofar as we are talking about a second phase or a next generation of attention to the NO_X problem, we very much think that in some of the areas where it is most severe, and in the VOC problem more broadly than NO_X, alternative fuels do precisely that. They get you between 30 percent pollution reductions from a flexible fuel vehicle and 80 percent from a dedicated vehicle that relies exclusively on these alternative fuels.

So I think for the longer term future that does provide an answer for the areas in most severe distress for that solution.

Senator **Baucus**. It all just depends on people's assumptions, like how many more miles people are going to travel, and so forth, in future years. There are a lot of assumptions here that are hard to nail down.

My time is up.

Senator Chafee.

Senator **Chafee**. Thank you, Mr. Chairman.

I would note—as you undoubtedly have, Mr. Reilly—how interesting it is that in these incredibly complex measures covering acid rain, for example, and nonattainment, nearly all the questions from the committee have been devoted to automobiles and tailpipe emissions. I think it is really a tribute to your legislation in that it shows that the differences in the massive acid rain are fairly modest.

My questions also seem to deal with automobiles.

EPA, in the past, in order to reduce the VOCs has always tilted toward the on-board controls, as opposed to the stage II. Now you seem to have reversed, and now you are in favor of the stage II. My question is why? What caused you to change, recognizing that the stage II only applies to the nonattainment areas, whereas the on-board controls would be everywhere, wherever the car is? Why did you change?

Mr. **Reilly**. As you know, Senator, this has been a very divisive issue on which opinions have differed among agencies of the government and across industries for some time.

We looked carefully at both these options. EPA's past support for on-board controls is well known, as you point out. There are concerns that the Transportation Department and others have raised about the safety of on-board systems. We had an election to make. We made it for stage II refueling controls which, in fact, do target the reductions to the areas most in need of them and can be brought on and have a quicker impact on the problem—on reducing pollution—sooner, and these gas station changes can be made faster in the areas that need them, than the fleet will turn over with new on-board catalysts. And so we elected to go with stage II.

Senator **Chafee**. Also, of course, with the stage II in those areas you get all automobiles, whereas with the on-board control you just get the new automobiles that are being built. So there is argument for that. I, personnally, would like to see both.

Now, it may be that with all we're doing on tailpipe emissions we are hitting the automobile manufacturers pretty hard.

You came out with a figure in connection with the House bill where they talk about getting 90 percent of the mobile source reductions. You have an $8 billion cost. That's on the Waxman bill, as I understand it. That seems to me, even for somebody hardened to Federal spending, $8 billion is a lot of money. How did you ever arrive at that figure?

Mr. **Reilly**. Yes, sir. Our analysis shows that the Waxman measure gets something in the range of 4 to 5 percent—I think our latest analysis indicates it is 4 or 5 percent more pollution reduction, more VOC reduction than our legislation, at an additional cost of $8.4 billion per year that would have to be borne by the consumer. It would add in the range of $500 to the price of a new car. It would involve $150 or so for the pre-heater or the catalyst that would be required, and a second increment of $350 to replace the catalyst after about 50,000 miles when it would require that. Those are very considerable costs.

I've got to say that, as somebody who has, from time to time, read analyses of the possibility of looking across the spectrum of regulatory policy of the United States Government to talk about a regulatory budget that we might contemplate, adding $8 billion more to an already very expensive bill for this small increment of pollution gain seems to me very hard to justify.

And, to the extent that we're looking at the end of the day at those kinds of costs, I very much fear, frankly, that we may be confronted with a mind set that concludes that in the country we have spent a great deal on environmental control, on pollution prevention and pollution control. That money may not be around to impose for other environmental costs that we're going to want to——

Senator **CHAFEE**. My time is up, so I want to ask you a quick question—follow on to what was said before dealing with the equipment having a 5-year or 10-year life with 100,000 miles. This is what your predecessor said less than a year ago, and we all had great respect for him, as you do. He said, "Our analysis shows"—meaning EPA—"that by extending the useful life for the existing tailpipe standards, the emissions reductions will be about twice as great as compared to the reductions that would occur with the proposed more stringent tailpipe standards and the current useful life."—naming the five. "An extension of the useful life is not equivalent to a back door tightening of existing standards; rather, it would be a clear, straightforward requirement for cars to comply with standards for the actual period in time they are driven on our highways."

Yet, you've reversed course on that, as I understand your answer to Senator Lieberman.

Mr. **REILLY**. Well, I don't think it is correct to say I have reversed course on it. Administrator Thomas was commenting on the proposal in isolation. And as an isolated measure to improve air pollution performance, in fact, extended useful life gets you something in the range, I think, of about nine tenths of one percent VOC reduction, or something like that.

It is true. I stand behind the remark that he made. But he was not in the position that I am in of proposing a comprehensive solution to the nations's clean air problem.

We have a measure here that is very aggressive and ambitious with respect to mobile sources, as well as with acid rain and air toxics. And looking at it as a whole, and looking at the very considerable cost that will be entailed as a result of it, I think we've got a position that we can defend without any difficulty at all.

Senator **CHAFEE**. My time is up, thank you.

Thank you, Mr. Chairman.

Senator **BAUCUS**. Senator Symms.

Senator **SYMMS**. Thank you very much, Mr. Chairman. And I thank our witnesses for being here this morning. Mr. Chairman, I especially thank you for allowing me to be here, as I am actually not a member of this subcommittee but very interested in the subject.

As we all know, Mr. Reilly, the Fifth Amendment prohibits the Federal Government from taking our property. The legislation that we are considering will allow those of you in the EPA to have the authority to go out and close down factories, utilities, and businesses, and levy fines against people if there are violations of the act.

Now, modern constitutional law tells us all of these activities constitute a taking unless they are necessary to address a real and substantial risk to public health and safety.

The Attorney General has said that it is not enough that a proposed regulation might rationally advance a legitimate public goal, and any action taken to regulate property used for public health and safety purposes must substantially advance the public health and safety purpose.

So, as we consider this legislation, it leads me into my question where the potential for this legislation to consume literally billions of dollars of our resources—of the people's resources—I think we want to try to be sure that the money is dedicated to real and substantial safety and health goals, not what might be advanced.

So can we than unequivocally state that the President's proposal—I think it is Senate 1490—could we unequivocally state, then, it would pose no regulatory cost on any American without producing either an equal or greater health benefit? What is your opinion on that?

Mr. **Reilly**. Senator, we have worked very closely with the Justice Department to ensure that the enforcement provisions of this bill are well crafted and fully justified. There is an executive order on the taking issue, and a high degree of sensitivity to fairness and to protection of property rights and Constitutional rights in this Administration.

We will fully expect to honor those requirements, but would only point out that we are dealing here with a pollutant that is about as democratic and unavoidable and affects as many or more people than just about any other. We have a pollution problem and the problem of air pollution. It is fundamentally a public health question of the first order, and I don't think that really can be disputed.

We have tried to tie the principle measures in the legislation quite closely to what we know about that, and we have bottomed it on good science. But in terms of implementation and enforcement, we will be very sensitive to the kinds of considerations you raise.

Senator **Symms**. I appreciate that comment. But, for example, what do you say to a taxpayer—an American citizen that lives in Nevada or Idaho or somewhere out in the wide, open spaces—about what public health benefit they get out of paying more money for an automobile because of new regulations which will be imposed through this legislation on the automobile industry which will drive the cost of automobiles up?

Mr. **Reilly**. Well, one of the benefits obviously is a reduction in toxics associated with current gasoline use that affects everybody virtually everywhere, whether farmers, or anybody who drives a car or refuels his automobile. I think they stand to gain quite considerably from some of these measures. But the point that you raised does go to the issue of further reductions that do not benefit some of those areas to the same degree that perhaps Los Angeles might benefit and I think is not an unreasonable concern. Obviously one has to strike a balance there, but I think we have struck a good balance. By and large, people across the country who are exposed to automobiles—which is virtually all of us—are going to gain considerably from the kind of changes that we are proposing.

Senator **Symms**. Even though they know they'll have to pay more money for the new automobile or the current automobile, which is a cost of something; yet, on the other side of it, they don't have an air problem in those areas now.

Now, if I could——

Mr. **Reilly**. Senator, could I just point out——

Senator **Symms**. Sure.

Mr. **Reilly** [continuing]. We're talking about—the President's proposal would add, in our analysis, about $37 additional cost to the price of a new car. And for that, I think we're proposing to get more than concomitant reductions both in conventional air pollutants and in——

Senator SYMMS. You may well be right. I had understood that the cost was more in the $200 to $400 range, but I may be wrong.

Mr. REILLY. The cost of the alternatives with the different tailpipe standards and the extended useful life that are also before you in our analysis is over $500.

Senator SYMMS. I'm about out of time, so I'll try to get this last question in. I've been reading a series of articles in the Washington Times by Warren Brooks about acid rain and what really causes it and so forth. What specific benefits will be achieved by the acid rain provision to this bill? Does the science support a 10 million ton reduction, and does science support the framework of the bill in making the bulk of the reductions in the Midwest? And then what assurances do we have that the reductions in the Midwest will result in commensurate benefits in the Northeast, for example? And where is the evidence to support the benefits.

In other words, the general thesis—I see I'm out of time—is that it is questionable whether acid rain really comes from SO_2 production in powerplants—that it is coming from vegetation and other changes in the environment of the eastern mountains and the land around the lakes. Would you want to comment on that? How much validity do you put to that thesis?

Mr. REILLY. As we discussed before you arrived, Senator, there has been a very considerable amount of money spent in researching some of those questions and trying to understand the causes and the effects of acid deposition. The National Academy of Sciences has commissioned reports on that issue. The NAPAP studies that have been underway for the better part of a decade, and I think on which you are going to hear within the next few weeks, have also.

We, before developing our responses to the acid rain problem, reviewed all of the scientific information and data that is available on the effects of sulfur and nitrogen oxides. In many ways, this research did fill in a good many gaps in our knowledge, giving us quite considerable confidence in the correctness of some of our assumptions. We are quite confident about the sources of the problem. We are quite confident that a ten million ton reduction will make a substantial contribution to alleviating it—to allowing the ecological systems, the lakes and rivers, to begin to move back to a healthy state and to reduce their acidity. That will not happen overnight. there is some uncertainty about how fast and how far it will occur. There is virtually none among the scientific community, insofar as I am aware, that it will occur.

Senator SYMMS. That it will occur?

Mr. REILLY. Yes, sir.

Senator SYMMS. Thank you.

Thank you, Mr. Chairman.

Senator BAUCUS. Have you given any monetary value to the costs to people in this country and other costs to this country in environmental damage and crop damage if we do not enact new law and maintain only current law with respect to urban smog?

Mr. **Reilly**. We do have a variety of studies trying to quantify the effects of the smog problem, Senator, and have them for different areas of the country. I'm not sure that we have the for the entire country. But we had health effects data and days lost from work—loss of productivity, generally; excess hospital admissions; cost of treating diseases, respiratory problems, and things of that sort.

Senator **Baucus**. Have you heard of the National Lung Association's estimate of $40 billion cost?

Mr. **Reilly**. Yes, sir.

Senator **Baucus**. I think that's all air pollution. I think that is not only urban smog, but also air toxics and acid rain.

Mr. **Reilly**. Yes, sir, I have.

Senator **Baucus**. Do you have any reason to dispute that analysis?

Mr. **Reilly**. It is a number I have cited frequently, myself, Senator.

Senator **Baucus**. Well it must be true, then.

Mr. **Reilly**. There is certainly no precision in a number of that sort, obviously. But it is, in our view, and in the view of our professionals, well within the range.

Senator **Baucus**. Are you aware of studies which show—I think it is a Harvard University study which has been updated several times—that there is an increase of 2 to 5 percent in morbidity and mortality in this country due to air pollution?

Mr. **Reilly**. I'm not specifically aware of that one. I'm aware of one indicating that there are 50,000 excess deaths associated with acid aerosols. I believe that is a Harvard Public Health Study that is either being completed or has been completed this summer.

Senator **Baucus**. So the cost of inaction is high?

Mr. **Reilly**. Yes, sir.

Senator **Baucus**. I'm a little curious at your response or suggestion that the cost of the round tow tailpipe emission provisions would be about $500 per auto.

Mr. **Reilly**. May I correct something I said earlier, too, about our own bill's consequences for the price of a new car?

Senator **Baucus**. Yes.

Mr. **Reilly**. I said to Senator Symms it was $37; it is actually, factoring in some other controls, about $80.

Senator **Baucus**. Do the catalyst manufacturers agree with your estimate that they cannot make a catalyst that will last 100,000 miles? Do they agree with your opinion that they will have to be replaced every 50,000 miles? Have you checked with them? That is over the next 14 years, when round II would go into effect.

Mr. **Reilly**. It is getting down to 0.125 that I'm informed is the problem with the technology, and holding it there. Whether they specifically agree with our conclusion, I'm not certain.

Senator **Baucus**. As you know, there was no——

Mr. **Reilly**. We don't know whether they have tried to cost it out.

Senator **Baucus**. You haven't checked with the catalyst manufacturers, then, to try to determine whether your opinion is, from their point of view, valid or not?

Mr. REILLY. Our understanding is that they are in the midst of looking at it very closely right now.

Senator BAUCUS. Do you see in the OTA estimate that this agrees with your assessment to be so costly?

Mr. REILLY. OTA, I understand, says it is probably not feasible.

Senator BAUCUS. Well, what about by the year 2000 or 2003? My point is this: I don't mean to quibble, but, as you know, this country did not have catalytic converters when the first Clean Air Bill was passed. And yet, that auto industry did develop catalytic converters in five years. It took five years for the industry to do that. And it took this country 10 years to do something even more dramatic, and that's put a man on the moon. That was about a 10-year program.

The provisions of the bill introduced in the Senate would require refinement, in my view, of existing technology, but not put in place until the next 13 years, the year 2003. It seems to me that certainly if this country, with a little imagination and creativity, could achieve those earlier. We can certainly refine a catalytic converter and make some additional adjustments that need to—standards prescribed in the bill.

I say that as further evidence, because so many American cars now are certified to meet those standards—and different size cars. There are mid-sized cars, there are bigger cars today—American cars—that are certified to meet round two standards. They are certified to meet them today.

It is true that those are not the in-use requirements. It is true that those cars haven't been tested after 20,000, 30,000, 40,000, 50,000, 60,000, or 70,000 miles. That is true. But the auto industry does certify that they can build cars today and drive around the oval tracks there under ideal conditions—ideal temperatures, ideal driving times, and so forth—that meet the standards. It is in existence today.

So if it is in existence today, why can't those same standards be maintained through the useful life of a car in the next 14 years?

Mr. REILLY. Senator, my understanding is that——

Senator BAUCUS. At a low cost?

Mr. REILLY [continuing]. There are not those cars out there meeting a 0.125 standard. There is technology to meet a 0.25 hydrocarbon standard. That's what we propose to go to. That's a 40 percent reduction over the current standard. And, even to the extent that the technology might be brought on to meet the much lower standard, half of that, whether it could be kept around for 100,000 miles is very, very doubtful.

Senator BAUCUS. Yes.

Mr. REILLY. But, in any event, we are, in fact, proposing in the legislation to push technology quite far. We are proposing, with the alternative fuels, to do something very innovative that gets reductions that are really off the scale compared to those available in any other way.

Under the tailpipe standards you're talking about, you would get a much—we would improve upon those tailpipe standards by 70 to 80 percent with an alternative fuel vehicle—a dedicated vehicle—after the year 2000. So if we're talking about a round two approach to the problem, it really strikes me that that is a very aggressive way to go, and one that is much more likely to be feasible.

Senator **Baucus**. This is a kind of minor point, but I'm not sure why, if I have a flexible fuel automobile—if they exist at some time in the future—why wouldn't I just always fill up with gasoline? Why would I go with methanol or some alternative fuel in a flexible fuel car?

Mr. **Reilly**. The obligations that the energy industry would have to ensure the sale of a certain quantum of fuel would obligation them to make sure that they do, in fact, meet the terms of the law. But we believe——

Senator **Baucus**. You mean force the industry to make methanol and provide all the facilities, even though people would just rather gulp gasoline?

Mr. **Reilly**. Well, we did the same thing with unleaded fuel with great consequences for reduction of air pollution in the United States.

Senator **Baucus**. But that was more nationwide, though.

Mr. **Reilly**. More to the point, let me say that the performance characteristics of using some of these fuels are considerably better than the are with gasoline. The octane is higher. The automobile is more responsive. The fuels, I might even add, are safer. That's the reason methanol has been used in the Indianapolis 500 for many, many years.

We believe that once these fuels have been used, once an automobile owner is familiar with them and the performance from the automobile that he or she has, it will not be a case of trying to force people to use something that otherwise they would not; but, rather, they will want to use them.

Senator **Baucus**. My time has expired.

Senator Symms.

Senator **Symms**. Thank you, Mr. Chairman. And thank you, Mr. Reilly.

I'm interested in that line of questioning. I guess all of us have questions, Bill, about the question of how far you can go with trying to force people to invent technology when we see today where the East Germans are coming into West Germany and they have to waive all the environmental standards because their automobiles from the countries where they hold guns to their head can't meet up to the one where they don't. So I think that is a very interesting question that the chairman posed. I don't know that any of us have the answer.

But I would like to go back, if I could, to your last answer to me back on this acid rain question where I think you said you don't know for sure that the ten million tons will, in fact, have the answer that we want. Did I understand you correctly?

Mr. **Reilly**. No, sir. My answer was that we know that 10 million tons will get us a very substantial contribution to bringing down the acidity problem in our lakes and streams. We know that from NAPAP research, from National Academy studies, and other research, and are very confident of that.

Senator **Symms**. But you said you didn't know how long it would take to get an impact?

Mr. Reilly. We can't say with precision how long it will take and what, precisely, the nature of the degree of impact will be. But we can say with very considerable confidence that we will get the improvements that we're looking for.

Senator Symms. I guess what bothers me about that is if 10 million tons is good, are we overshooting it? Do you think we could get by with six? Or should we be going to 12? It just seems to me like it is kind of a crap shoot.

Mr. Reilly. Well, one of the discouraging things about this problem—and even the proposals that we have, frankly—is that when the bill is fully implemented and we have successfully removed ten million tons of sulfur dioxides from the annual emissions and the environment, we still will see annually 15.7 million tons out there and emitted. We would very much like to go higher rather than lower, if that were possible.

The consequence of going to 12 million tons of reduction, however—just two more million tons—would be to double the cost of the acid rain portion of our legislation, pushing it up cose to $8 billion instead of close to four. We thought that an unreasonable additional increment to cost——

Senator Symms. In other words, it is unreasonable to pay that extra money for such a little improvement?

Mr. Reilly. To pay 100 percent more beyond the ten million tons, look to use comparing the various numbers across the spectrum of pollution control costs that were going to propose seem to us unjustifiable at this time.

But we are confident that the ten million ton goal—which is 50 percent of utility emissions, roughly—is one that is achievable. We think that the cost versus the benefits there are acceptable, and are quite confident that it is going to have the desired effect.

Senator Symms. Well, if 12 would cost—how much more was the cost/benefit ratio of going from 10 to 12?

Mr. Reilly. It about doubles the cost.

Senator Symms. Doubles the cost. How about going back to say eight. Where is the cost/benefit ratio on that?

Mr. Reilly. Eight billion tons is, I think, something in the range of a little more than 50 percent as expensive as ten.

Senator Symms. And how about six?

Mr. Brenner. Once you get down to about six billion tons, then, again, you might drop it by perhaps another third or so from where you were at the eight million ton level.

Senator Symms. I mentioned the Warren Brooks series. I'm sure you have all read those, haven't you? He is making the thesis that reforestation has got as much to do with acidity in the lakes as the rainfall.

Mr. Reilly. I have not read that series, Senator. No.

Senator Symms. Have any of you heard this thesis? It is not a—what's your comment on that?

Mr. Brenner. I have read the series, and I'd point out that—we could get into a fairly lengthy discussion as to whether that particular part of his thesis is correct or not regarding trees or lakes. But remember, we have a series of concerns here that deal with trees, with lakes, with public health and materials damage. I don't think there is much dispute that there is an acid rain concern out there, and even though people may argue about the magnitude of any one piece of those concerns, I think, taken as a whole, there is very widespread consensus in the scientific community that there is cause for concern regarding the damage caused by acid rain.

Senator SYMMS. The reason I asked the question—I'm not trying to be difficult here. When I read those articles like that, and there is a very logical rationale behind the thesis, and the legislation which we're being asked to support and vote for says that 10 million tons will achieve this so-called "desired effect"—what it is we're trying to accomplish—"and we're going to spend this much money doing it." Then I have to come back and say, "Well, exactly what is the desired effect? What is going to happen to the cost of electricity in those States that have to clean up? And how long will it be before the rest of the country wants to spread that cost around to everybody to help pay for it?

Mr. BRENNER. When it comes to public health, of course, to the extent there is a problem with acid aerosols—which we've talked about a number of times this morning—the benefits are immediate. The year that you get it out of the air, that's a year that people will not be breathing it.

The effects on materials are immediate. The effect on lakes and on trees and forests may take longer to be seen. But, in the case of forests, where there is some concern as to what is causing the problem, what we're going after is a combination of not only acid aerosols and SO_2, but, in the other parts of the bill we go after NO_x and we go after ozone and the other pollutants that may be causing stresses on those forests in conjunction with the acid rain pollutants.

So we think that even if the problem is not just caused by SO_2 alone on forests, we have an overall program that will go after the combination of pollutants that may be damaging as forests, and you will see benefits, and they may be damaging as forests, and you will see benefits, and they may not happen right in the same year that you begin achieving the reductions. But we think you will see benefits shortly thereafter.

Senator SYMMS. Thank you. Thank you, Mr. Chairman. I see my time has expired.

Senator BAUCUS. Thank you, Senator.

Mr. Reilly, turning to acid rain, so long as there is a cap on emissions, so long as the present emissions cap remains in place, is there any adverse environmental affect of repealing percentage reduction?

Mr. REILLY. The cap achieves substantially the same consequence and perhaps goes further than percentage reduction does in terms of its impact on sulfur dioxide emissions from new plants. The answer is no, sir.

Senator BAUCUS. And, again, so long as the cap remains in place——

Mr. REILLY. I hope that in using that language you're not suggesting that there is anything doubtful about it. We're very committed to the cap, and very much hope that we'll be able to work with the committee to keep it in.

Senator BAUCUS. In addition, so long as the cap is in place, is there any reason to retain percentage reduction?

Mr. Reilly. No, sir.

Senator Baucus. In the Administration's bill, some utilities in the west are particularly concerned because the bill requires those utilities that have met not only NSPS standards, but standards much more stringent to reduce their emissions, if the goal in meeting the acid rain problems is to reduce emissions of the dirtiest plants, but not of the cleanest, why would a bill, as the Administration's bill, require those clean utilities who have very, very tough standards? They are much, much more stringent than the 1.2 pounds per million BTU to further reduce their emissions?

Mr. Reilly. Well, sir, it is not true to say that we require that they reduce their emissions. If we're talking about an NSPS source in the west with a 0.4 rate, we would—we have crafted the bill in such a way that those plants will not have to buy into the allowance system, will not have to reduce their emissions, will not see their ratepayers pay any additional cost for electricity as a consequence of our bill. In fact, we tried to anticipate that possibility that such plants would want to increase capacity over time, and chose the most recent years for which we have data—1985 through 1987—and credited them with an emission rate based upon their fuel use for that period.

They are fully permitted, under our legislation, to increase the capacity. If they keep the 0.4 rate they can, in fact, emit more. That is something we did precisely to deal with a possible equity problem that otherwise some people might see. But we think that it does end up being substantially fair to those cleaner plants, and certainly should be much more fair and much better received by them than a cost-sharing proposal that they would add some portion to their rate bills in order to pay for clean-up in other parts of the country.

As new plants come on, however clean they are, they are going to emit sulfur dioxide. It is true that those new plants would have to obtain allowances from the market system of trading allowances that we're proposing be established.

The consequence of not doing that would require us, if we are genuinely to achieve a 10 million ton bill, to come down much harder on those other areas of the country that are already being asked. I think nine States in the Middle West are being asked to reduce about 65 percent of the sulfur dioxides overall in order to conform to these requirements.

We thought and consider now that in looking at these alternatives we've struck a reasonable balance and been quite fair in allocating the costs associated with this problem.

Senator Baucus. Just so I better understand, then, what must a utility in the West do that has even more stringent than 0.4 today? What must it do in order to not have to reduce its emissions?

Mr. Reilly. It needn't do anything at all. It does not have to reduce its emissions. No plant that has a 1.2 or lower pounds per million BTU emissions rate has to do a thing.

Senator Baucus. So they can continue operating as it is currently?

Mr. Reilly. Yes, sir.

Senator Baucus. Well, that's now what they understand.

Mr. REILLY. Well, that is, in fact, our intention. That should be explicit in the legislation. It is something that we gave a great deal of care and analysis to, and is our policy.

Senator BAUCUS. I have no further questions.

Mr. REILLY. I'd be glad to clarify that.

Senator BAUCUS. If you could, please, Mr. Reilly. Because, again, I don't think that's fully understood, at all. That's not how they perceive the effect of the bill.

Mr. Symms.

Senator SYMMS. I just wanted to get back to the phases in the bill. You've got 1990 to 1995 as phase I and 1995 to the year 2000 as phase II. What led to the selection of those dates? Is it just a general guess of where it would be a good place to do it? Or was there some scientific reasoning behind it?

Mr. REILLY. You're talking about the acid rain provisions?

Senator SYMMS. Yes.

Mr. REILLY. We had a number of objectives. We wanted to make substantial reductions in the problem and chose to do that on the time frame with the 10 million ton reduction by the end or the century. Those are numbers and dates that have been subject to considerable analyses and discussion over the last few years. We also very much wanted to get some reductions as soon as we could. We did not feel that it would be possible or feasible to get the full ten million ton reduction in a five or six-year time frame, but looked carefully, given the fact that one million tons have already been reduced from industrial sources. We're looking at four million tons that have to be achieved in the next years. We thought that would be quire reasonable and came to that conclusion.

I should add that it also, that this is a very strongly held view in Canada that we need to move to address this issue. I think the Canadian ambassador has said it remains the only significant irritant in an otherwise very productive and congenial relationship—particularly since we've gotten a free trade agreement with Canada.

So with all of those considerations, we made the choices that we made.

Senator SYMMS. Well, I appreciate that. I guess I just want to pursue the question a little further.

Phase II, by coming so soon on the heels of Phase I, will be forcing people to put on expensive scrubbers. What I'm wondering is if we could somehow—would you look kindly towards an amendment to this bill that would say, let's stretch out phase I over 10 years and then have maybe phase II, and then phase III so that, in the event that clean coal technologies are cost competitive and maybe even better than scrubbers, that we could spend our money on down the road so they could meet this phase where they would not have to use what might be by then, we hope, out-of-date technology at a lower cost.

Mr. REILLY. The Administration, the President, has made a major commitment to clean coal technology, as reflected in proposed expenditures in the range of $700 million this year.

We crafted this legislation with a very careful eye on that problem of making sure we don't do anything to impede the demonstration of the introduction of clean coal technologies. We consulted closely with the Energy Secretary on it, and he felt strongly enough about it to allow an additional three-year deferral of time to 2003—December 31, 2002—to those utilities that do, in fact, elect that repowering technologies, that look promising currently.

My understanding is, from all of those consultations—and I think the Energy Department has testified to this—those time frames are fully reasonable and should not impede bringing on the new technology. We expect to see clean coal technology demonstrated in this decade and choices to be capable of being made on it late in the decade.

Senator SYMMS. Thank you very much.

Thank you, Mr. Chairman.

Senator BAUCUS. Turning back to the question of whether or not a utility has to reduce its emissions, what would happen in this case: let's assume in 1985 a utility's emission rate was 0.4 pound per million BTU—fairly clean coal. Let's assume today the emissions rate is 0.8; that is, the company has dirtier coal. It is still low-sulfur coal, but it is dirtier coal. It is still well below 1.2.

Under the Administration's bill, must that utility reduce its emissions rate back down to 0.4?

Mr. REILLY. Under our bill, we are looking at the three base years of 1985 through 1987, and if the rate at that time, as you described, was 0.4, it would have to be 0.4——

Senator BAUCUS. Why is that?

Mr. REILLY [continuing]. To preclude the purchase of allowances.

Senator BAUCUS. But isn't that unfair to that utility that is substantially below 1.2, whereas other utilities in this country are much above 1.2? Why is that fair to that utility that spent, in many cases, tens of millions of dollars? In fact, I can think of a combination of several I know of that spent up to a quarter of a billion dollars on pollution control. Shouldn't they be rewarded, not penalized, even though they're much below——

Mr. REILLY. I guess this is what I had in mind when I said there is no free lunch. There is no alternative that I think would be more equitable than that one. The only reason it strikes me that that would be perhaps asking too much is if there is something totally anomalous about the base year period that makes that an unfair basis for making the calculation.

As I said, the consequence of doing that is to maintain the ten million ton reduction—a reduction that is going to be attributed to relatively small amounts from those Western states, vis a vis many of the more hard hit States with the dirtier emissions. They certainly are going to have to pay more, be disrupted more, as a consequence of the legislation. And I guess I would have to say that we believe that, to the extent that the 1977 percentage reduction requirements may have discriminated against the cleaner coal, this bill provides more than a compensating advantage to those economies by creating a very substantial new market for that coal.

Senator BAUCUS. It seems to me the playing field still isn't level, though, if, again, those utilities have gone the extra mile—probably because of percentage reduction and for other reasons. They still have to cut back when, frankly, they're not the main cause of the problem, but somebody else is. I still think that under those circumstances the playing field still is not level. We will address that in this committee.

Mr. **Reilly**. Senator, I wonder if we might propose that our staff and the committee staff sit down to try to work out some of the issues that we have discussed today and which are obviously some problems of simple understanding and perhaps clarification of our proposal—the accident release provisions, the impact on clean States that you've just been discussing, alternative fuels. We'd very much like to cooperate on some of these measures, and would hope that in a couple of those cases, at least, a further clarification of what, in fact, we're proposing would be reassuring to you.

Senator **Baucus**. Are you willing to compromise then?

Mr. **Reilly**. We certainly recognize that compromise is part of the legislative process, and we very much want to see legislation passed.

Senator **Baucus**. I think that is an excellent suggestion, then.

Mr. **Reilly**. Are you, sir?

Senator **Baucus**. It always makes good sense, I think, to sit down and talk and try to see what we can work out together. I will make our staffs available.

Mr. **Reilly**. Thank you.

Senator **Baucus**. I appreciate that very much.

Thank you very much, Mr. Reilly. You've made a great contribution to this process, and I expect you to continue to be a great contribution to this process. I thank you very much for your efforts. Thank you very much.

Mr. **Reilly**. Thank you, Mr. Chairman, very much.

[Whereupon, at 12:19 p.m., the subcommittee was adjourned, to reconvene at the call of the Chair.]

[Mr. Reilly's written statement, responses to additional questions, and the bill S. 1490 follow:]

TESTIMONY OF
WILLIAM K. REILLY
ADMINISTRATOR
U.S. ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE
SUBCOMMITTEE ON ENVIRONMENTAL PROTECTION
OF THE
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
U. S. SENATE

September 26, 1989

Mr. Chairman and Members of the Subcommittee, I am very pleased to be given this opportunity to discuss with you the "Clean Air Act Amendments of 1989." These amendments reflect the extensive and determined efforts of the Executive Branch, informed and enlightened by the important legislative work done by Congress in recent years. We share a fervent desire to protect our nation's environment and I believe these amendments will serve as a critical foundation for the important work ahead.

Since July, when President Bush released the detailed legislative language of his proposed Clean Air Act, an enormous amount of public debate has occurred on the clean air issues. It gives me great pleasure to appear before you today to further the public discussion of the Administration's proposal, and, where possible, to clarify any misunderstandings which have been expressed about it. The country needs a stronger, more effective Clean Air Act. The people want a stronger, more effective Clean Air Act. And the President has proposed legislation that will be a stronger and more effective Clean Air Act.

Despite its truly remarkable success at limiting emissions of certain air pollutants, the Clean Air Act that was passed in 1970 and substantially amended in 1977 has several serious shortcomings. It did not effectively provide the tools EPA and the States needed to implement measures to control urban smog, an air pollution problem shared by virtually all large U.S. cities. It does not provide a very effective mechanism for controlling emissions of toxic air pollutants. And it does not sufficiently limit emissions of acidic air pollutants to protect natural ecosystems from the effects of acid rain. For over a decade we have debated whether and how those shortcomings should be rectified.

The American people have heard enough of that debate. As poll after poll has demonstrated, they are very concerned about the quality of the air in this country. They want the Clean Air Act to be strengthened to limit more stringently the air emissions that cause smog, toxic air pollution, and acid rain.

In preparing the Administration's first environmental legislative initiative, over several months, the President listened carefully to all sides of the debate. He knows the environmental and health concerns of the American people. And he too believes, as he has said several times, that the time for action is now. This bill is his plan for action.

The President's proposal is a real response to serious air quality problems, and addresses them in an honest and realistic way. This strength of this bill is due directly to the President's leadership.

One major problem that has characterized environmental debates in general and the Clean Air Act debate specifically is that the tone of the debate has degenerated. Some have been questioning others' motives.

This legislation before you today is unifying. The members of this Committee have made many distinguished and long-term contributions to the goal of clean air. I also want to give credit to the many efforts in both the House and Senate that have been made to amend the Clean Air Act. These actions have been informative and immensely useful in contributing to the development of our proposal. We particularly applaud your recent efforts in developing a legislative proposal to address the problems of nonattainment. We view this as a constructive step forward in the clean air debate.

The President has proposed a tough environmental bill. It would make substantial and quantifiable improvements in air quality in this country, and it would make them quickly. If this bill is enacted, most cities would attain national air quality standards for ozone and carbon monoxide by the turn of the century; all cities would attain those standards in the decade thereafter. Emissions of toxic air pollutants nationwide would be cut substantially. Acid rain would be cut nearly in half by the turn of the century, thus helping to protect the sensitive ecosystems, public health, materials and visibility now at risk both in the United States and in Canada. In short, the enactment of this bill would make the 1990s the decade of clean air, and it would launch us into the 21st century in much better health and with a much improved environment.

We have taken costs into account in developing this proposal. It would be unrealistic not to do so. Although there is some uncertainty concerning future control costs, our best estimate is that the total costs of implementing our proposal would be approximately $15 billion annually after the year 2000. This is no small sum; but the benefits in public health and environmental improvements are worth it. We do want to be careful, however, that the control measures imposed by the federal government are as cost-effective as possible. The President's bill reflects this effort.

The President's proposal also contains many innovative economic incentives. This bill incorporates more economic incentives than any environmental law ever passed in this country. The President is a strong proponent of the marketplace. He believes that the forces of the free market help keep this country strong and its people free. In this bill he brings the force of the marketplace to bear in our national effort to protect air quality. In doing so he is not only proposing a fundamental change in the way we approach air pollution control in this country, he is also giving momentum to an idea that is shared by many people on Capitol Hill today. The President's bill reinforces a widely held belief that we must incorporate economic incentives much more extensively into all our environmental protection efforts.

I am especially enthusiastic about this bill's market incentives, because they help to clarify what I believe are the proper roles of the Federal government and the business community. It is very properly the business of the Federal government to set the nation's environmental goals, in this case the nation's clean air goals. But if we are to attain those goals in the least expensive, most effective ways, then we have to involve the creative, innovative energies of the affected industries. This bill gives industry a great deal of flexibility in meeting clean air goals, and it gives it economic incentives to take advantage of that flexibility.

Another innovative feature of the President's proposal is the alternative fuels program. In order to help achieve urban air quality goals, the bill would initiate a program to phase in the use of alternative clean fuels and the vehicles that burn them. The alternative fuels provisions would result in the sale of a million clean-fueled vehicles a year by 1997. By introducing alternative clean fuels and vehicles on this scale, the President's bill would begin to build the economic infrastructure necessary to support a clean-fuel automobile fleet.

You now have before you the President's proposal in all its detail. Given the fact that it amounts to about three hundred pages of fairly technical legislative language, I have no doubt that you will find parts of it you believe can be improved. I want to continue to work with you in the weeks ahead to discuss this bill in depth, and to fine tune it if necessary.

But for the reasons I've just discussed, this particular bill deserves your fullest consideration. The President's proposal sets high, yet attainable clean air goals, goals that the American people passionately support. The bill proposes strong actions that would result in substantial reductions in air emissions by the turn of the century. The bill proposes to enlist market forces in defense of air quality. And the bill proposes to make the automobile more compatible with the nation's desire -- indeed, the nation's demand -- for clean air.

The President has told me that he hopes he can sign a stronger, more effective Clean Air Act on January 1, 1990. That date marks the twentieth anniversary of the enactment of the National Environmental Policy Act, and the beginning of a decade that is now recognized as a major environmental watershed in our nation's history. That is also the first day of a new decade, a decade that holds forth equal promise. I realize that we are going to disagree about some parts of this bill. But after all the debate has ended, I hope we can send this bill to the President for signature by January 1. I want to stand in the Oval Office with the leaders of Congress when the President kicks off the Clean Air

Decade. My staff and I are willing to work to ensure that that happens.

Now I'd like to discuss the major sections of the President's proposal in more detail.

Title I--Nonattainment

Title I of the Clean Air Act Amendments of 1989 addresses both the particular air pollution problems -- for example, urban smog, carbon monoxide, and particulate matter -- that have been most difficult to solve in recent years, as well as basic structural problems in the current Clean Air Act. The health effects of heightened levels of these pollutants -- ozone, carbon monoxide, and particulate matter -- range from impaired breathing and chest pain to angina, permanent lung structure damage, increased susceptibility to lung disease, and premature mortality. Elderly people, children, and those with preexisting lung disease can be especially vulnerable.

The sources of these pollutants are many and widespread. Automobiles account for almost half of the volatile organic compounds (VOC's) and nitrogen oxides that produce ozone, and for most of the emissions of carbon monoxide. Other sources of volatile organic compounds include automobile refueling; solvents, coatings, and paints; industrial processes such as petroleum storage and refining; and consumer products of all kinds, from windshield washer fluid to hair spray. Particulate matter can come from "smokestack industries" such as iron and steel production, but also from woodstoves, road dust, and diesel engines. All of these have to be addressed in a sensible ways if we are to meet the President's clean air commitments.

Title I would replace the current structure in the Act with an updated approach that would address all current and future efforts to attain national ambient air quality standards (NAAQS). It would establish a set of general requirements that would apply to the air quality plans for all areas of the country, regardless of the quality of their air, after EPA promulgates a new or revised NAAQS. Also contained in this title is a set of general requirements that would apply to all areas designated nonattainment for a pollutant. In addition, Title I contains various requirements that would apply specifically to areas designated nonattainment for the six pollutants for which EPA has already set NAAQS: ozone, carbon monoxide, particulate matter, lead, sulfur oxides, or nitrogen dioxide.

For ozone nonattainment areas, one of the major focuses of the current Clean Air Act debate, the title proposes attainment deadlines of 1995, 2000, or 2010 pegged to the severity of the problem. As part of our proposal to reduce emissions of volatile organic compounds in the most significant ozone nonattainment areas, we would require all but the marginal ozone nonattainment areas to reduce these emissions by 15% by 1995 and by 3% per year thereafter for those areas which do not reach attainment by 1995.

This requirement would ensure that steady progress toward attainment is achieved. In addition, this bill would require EPA to issue guidelines on control technology applicable to industrial facilities, which States would then use to develop emission control requirements. The bill also calls upon EPA to study means of controlling emissions of VOCs from consumer and commercial products and, based on the results of the study, to regulate their emissions as appropriate. These provisions will give both the federal government and the States a major role in achieving the emission reductions needed to bring clean air to our cities.

Depending on the severity of the problem, Title I would require carbon monoxide nonattainment areas to reach attainment by 1995 or 2000. For particulate matter, nonattainment areas would generally be required to attain the standard by 1994 or 2001.

Title II -- Mobile Sources

Title II contains provisions relating to mobile sources. The provisions in this title would establish programs for the use of vehicles operated on clean alternative fuels. The clean fuels program proposed here is one of the most innovative components of this title. It is designed to begin to reconcile the environment and automobile so that Americans can continue to enjoy economic growth, mobility, and clean air.

We propose to see replaced a portion of the motor vehicle fleet in the most serious nonattainment cities by new vehicles that operate on clean burning fuels. In the nine major urban areas where current data show the greatest concentrations of ozone, the plan calls for a ten-year program for the phased-in introduction of alternative fuels, and clean-fueled vehicle sales according to the following schedule: 500,000 vehicles in 1995; 750,000 vehicles in 1996; and 1,000,000 vehicles each year from 1997 through 2004.

The major metropolitan areas affected by the plan are: Los Angeles, Houston, New York City, Milwaukee, Baltimore, Philadelphia, Greater Connecticut, San Diego, and Chicago. If these areas are able to demonstrate that they can achieve equivalent reductions in VOCs and toxic air chemicals through other measures, the plan would allow them to "opt out" of the clean-fueled vehicle and alternative fuels program. The plan would also allow other cities to be included in the program at a State's request.

The alternative fuels program proposed in these amendments, combined with other motor vehicle and fuel measures in the bill, including enhanced inspection and maintenance, controls on refueling emissions at the pump, controls on evaporative emissions, tighter tailpipe standards, and tighter fuel volatility standards, would shrink the contribution of vehicles to the ozone problem from the current 40 percent to ten percent. This represents not only an alternative to some of the more disruptive driving controls currently being considered by some States, but also a bold and innovative means of reconciling continued use of the automobile by a growing society with the need for cleaner air.

Title II also allows mobile sources and refiners to work on developing innovative approaches to achieving the required reductions of mobile source-related VOCs and air toxics. Under the President's proposal, EPA would issue a rule that would allow automakers to engage in "emissions trading" and fuel refiners to engage in "fuel-pooling," thus giving these companies the flexibility to meet emissions standards through the most efficient combination of control measures.

Some critics have charged that the President's mobile source provisions are weak and in some cases even weaker than current law. Yet, any fair examination of Title II shows otherwise. The President's cost-effective package achieves over 90 percent of the reductions obtained in, for example, Congressman Waxman's bill, H.R. 2323, at a price tag of about $8 billion/ year less.

The President's bill includes tough vehicle and fuel measures, including:

- tighter tailpipe standards for hydrocarbons and nitrogen oxides for passenger vehicles and tighter hydrocarbon and carbon monoxide standards for light-duty trucks;
- "cold start" carbon monoxide standards to address the high carbon monoxide levels that occur at cold temperatures;
- substantially tighter controls on vehicle evaporative emissions;
- reductions in gasoline volatility;
- "Stage II" systems in many areas to control refueling emissions;

- a requirement for enhanced inspection and maintenance controls in many areas;
- clean fuels in the nine most polluted cities;
- a requirement that all new buses in large cities use clean fuels; and
- a requirement to use oxygenated fuels in cities with the worst carbon monoxide problems.

Fully implemented, the President's program will achieve major reductions in emissions from gasoline-powered vehicles -- 30 percent nitrogen oxides reductions and about 40 percent hydrocarbon reductions in automobile tailpipe standards alone. More importantly, the program will have initiated a move towards cleaner burning fuels that will result in major long-term reductions in ozone-forming pollutants.

Another issue that has been misunderstood is the President's proposal to allow automobile manufacturers to use emissions averaging to meet standards. Although critics have charged that averaging of tailpipe standards would result in increased emissions, this simply is not so.

The President's bill is designed to ensure that averaging is used only so long as it achieves at least the same emission reductions as would otherwise be obtained. Vehicle manufacturers currently factor in a 40 percent margin of error at the time of certification in order to maintain the required reductions for up to 50,000 miles. This margin of safety could not be "averaged away" in the President's proposal; manufacturers would still need the 40 percent cushion to meet the standards at 50,000 miles.

An averaging program is already being successfully implemented for heavy-duty engines; it can generate up to a $100 million in annual savings without sacrificing any environmental protection. The program envisioned in the President's bill would expand this concept to passenger vehicles and light-duty trucks. The savings would be great while still achieving the environmental requirements of the Clean Air Act. Averaging, in other words, merely allows a manufacturer some flexibility in order to meet standards in the most cost-effective manner possible.

Title III--Air Toxics

Public concern has continued to grow about toxic air pollutants. We know that in 1987, industry reports indicated that an estimated 2.7 billion pounds of air toxics were emitted into the atmosphere, and have estimated that as many as 1600 to 3000 deaths per year may result from exposure to toxic air pollutants. EPA's ability to act in this area has been severely constrained by a statutory provision which is difficult to implement effectively and a court decision on its vinyl chloride standard. Rather than debate about the last margin of risk reduction, it is time to begin an expeditious program of best technology standards to reduce these risks.

The major goal of Title III of the bill is to break the legal logjam and achieve significant reductions in emissions of hazardous air pollutants from major sources. This Title would mandate the application of maximum achievable control technology (MACT) taking into account cost and feasibility considerations, for source categories identified by EPA. We estimate that this requirement would achieve a 75 to 90 percent reduction in air toxics from uncontrolled levels. The definition of MACT is comparable to another term of art, "best available control technology." MACT will require existing sources to achieve the same emissions standards as obtained by the best performing plants now operating. New sources would be subject to an even tougher standard, matching that set by the single best performing source.

If MACT proves to provide insufficient protection against unreasonable risks, the bill would require a second phase of further emission reductions. The unreasonable risk standard in Phase II is designed to prevent unnecessary plant closures that could occur under other legislative proposals (particularly in the coke processing and synthetic chemical industries) while protecting public health.

Another major goal of this Title is to increase the role of State and local agencies in implementation and enforcement of air toxics controls. The bill would provide for implementation of national standards by State and local agencies through the operating permit system set up by Title IV. States with programs approved under that title could also administer an alternative compliance program under which sources could obtain an exemption from the first phase MACT controls by demonstrating that their emissions cause negligible risk to public health or that voluntary emissions reductions have already achieved 90-95% emissions reductions. Further, the amendments to the enforcement provisions of the current law will lead to tougher enforcement of the air toxics requirements.

In addition to the substantial reductions in mobile source air toxic emissions that will occur as a result of the provisions in Titles I and ¯I of our bill, we believe more aggressive action must be taken to address air toxics from mobile sources. The pollutants at issue include benzene, toluene, xylene and formaldehyde. The President's bill focuses on these pollutants by requiring, in section 206 of the bill, a study of the need for and feasibility of controlling emissions of unregulated toxic air pollutants associated with motor vehicles and motor vehicle fuels. The Agency would be authorized to issue regulations, as appropriate, based on the conclusions of the study.

Finally, the President's bill also would regulate small "area sources" posing significant risk to the public.

Title IV--Permits

The new nonattainment, air toxics and acid rain provisions will pose a challenging implementation task for EPA and State and local governments. As we looked at these challenges and at our past experiences in carrying out the Act, it became increasingly clear that new administrative structures would be needed if our goals of improved enforcement, expanded market opportunities, and flexibility for State and local agencies were to be met. Title IV of the Clean Air Act Amendments of 1989 would give us the tools to meet these challenges. Title IV builds on existing State, local, and interstate air pollution control agencies' programs by requiring submission to EPA of comprehensive programs for permitting stationary sources. Sources covered under this program are those that are subject to one or more of the regulatory programs under the Act: State implementation plan (SIP) requirements, new source performance standards, emission standards for hazardous air pollutants, prevention of significant deterioration, nonattainment new source review, and acid deposition controls under the new Title V. This comprehensive program is patterned generally after the permitting program that now applies under the Clean Water Act which this Committee developed.

The title would require EPA to issue regulations governing permit programs, which would include requirements for adequate State statutory authority and for the collection of reasonable permit fees. Each State would be required to submit a permit program to the Administrator not later than three years after enactment.

Title V--Acid Rain

As President Bush so eloquently stated, the time for study on acid rain has passed. Now is the time for action. We know that sulfur and nitrogen oxide emissions are transformed in the atmosphere to form compounds that threaten our lakes and streams. The purpose of Title V, which contains the bill's acid rain proposals, is to achieve and maintain a 10 million ton reduction in SO_2 emissions relative to 1980 levels and to limit overall growth in NOx emissions. We believe that a reduction of this magnitude will stop or slow the deterioration of our lakes, streams and forests that can be attributed to acidic deposition and allow most of those systems to start down the road to biological recovery. Moreover, it will improve visibility and reduce materials damage and health risks associated with these pollutants in the atmosphere.

One of the most important features of Title V, that takes advantage of the market-based approach and that ensures environmental protection for years to come, is the requirement for new sources to obtain emission allowances. This provides an incentive for newer sources to be as clean as possible, not simply stopping their control effort at the New Source Performance Standard. It also provides an incentive to get additional cost-effective emission reductions at existing sources. Our bill will maintain the emission reductions at existing sources achieved into the next century -- a feature not found in any other bill before Congress.

Reductions in sulfur dioxide emissions would be achieved in two phases -- phase one reductions would be required after December

31, 1995 and phase two reductions would be required after December 31, 2000. The proposal also recognizes the benefits that this country and the environment can receive from improvements in our coal-burning technology and provides incentives, not only for demonstrating these new technologies, but for deploying them as solutions to the acid rain problem. In recognition of their current state of development, this bill proposes to let sources which find certain repowering technologies to be a viable control option to receive a three-year extension of the December 31, 2000 deadline. In addition, those boilers amenable to cost-effective retrofit with low-NOx burners would be required to install such devices by the end of the year 2000. We believe that such a program, which is similar to other legislative proposals, will reduce NOx emissions in 2000 by 2 million tons.

Consistent with our commitment to use market forces wherever possible, Title V calls for maximum flexibility in obtaining reductions. The plan would allow utilities to trade required reductions of sulfur oxides and nitrogen oxides so that they will be achieved in the least costly fashion. In the first phase, allowances can be transferred among affected sources within a State and within an interstate utility company. In phase two, broad interstate trading within an Eastern region and a Western region would be allowed.

Some critics have claimed that the President has failed to deliver on his promise to reduce sulfur dioxide emissions by 10 million tons below 1980 levels. Many of these statements have focused on the fact that the President's bill takes credit for one million tons of reductions that have already occurred in the non-utility sector since 1980. It does. So does almost every other major legislative proposal on acid rain, and with good reason. Reductions below 1980 levels naturally include reductions that have occurred between 1980 and the present.

EPA's projections show that because the President's bill is based on a tonnage, rather than a rate basis, it will result in at least one million tons more in reductions than other bills which have been proposed. For example, in the case of the Sikorski-Waxman bill, H.R. 1476, the 10 million ton reduction claimed is from a projected future level that includes significant growth rather than from the 1980 level used by the President's and other major bills. Under the President's approach, the reduction goals will be achieved no matter which forecast of utility emissions you accept. Most importantly, however, the President's bill puts a "cap" on pot-2000 emissions, thereby maintaining the 10 million ton reduction and the environmental improvements over time.

Much has been written about the acid rain trading provisions of the Administration proposal and about the potential economic impacts of the cap on sulfur emissions. I believe that the emissions cap is technically and economically feasible, and should be an integral part of any acid rain legislation.

The President's bill is the first major effort to incorporate market mechanisms in an environmental protection statute to demonstrate the contribution the market can make in reconciling the nation's environmental and economic objectives. The trading system would provide incentives for utility managers to choose the least cost solution to meeting environmental goals. It would allow utilities to choose between fuel technologies and energy conservation strategies to meet their emission goals.

Some have characterized the President's trading system as a cumbersome regulatory process, where each operating permit would have to be modified for each trade. This is a misinterpretation of what the bill would do. Under the President's bill, each plant would have a permit that would require it to hold emission allowances equivalent to its annual sulfur dioxide emissions.

The trading system would operate like a checking account. The utility would be free to buy and sell emission allowances -- without amending the permit -- just as bank customers are required by the bank to hold sufficient funds to cover their checks. And just as a bank does not get involved in how to earn and spend the money in its customers' accounts, EPA would not tell a utility how to meet its allowance and emissions obligations. The requirement that every unit install and operate a continuous emissions monitoring system would provide EPA with the necessary certainty about the location and magnitude of emissions.

By providing incentives for utilities to choose the least cost solution to meeting environmental goals and maximizing flexibility, the President's bill results in the cheapest 10 million ton acid rain reduction proposal on Capitol Hill. A recent study by the electric utility industry agrees that a simple and flexible trading system would reduce costs by about $1 billion/ year. In addition to reducing overall costs, trading would spread the costs more evenly between utility systems, thereby mitigating some of the rate impacts that might otherwise occur. Trading would also encourage innovation in pollution control technologies and reward utilities for pollution prevention and energy conservation investments.

The combination of the emissions cap and trading provisions provides strong incentives for utility-sponsored energy conservation and stimulates innovation in both pollution control and electric generating technologies. It is also consistent with efforts to reduce carbon dioxide.

The environmental benefits of an emissions cap are tremendous. While the sulfur reductions gained under other legislative proposals would erode over time, the gains under the President's bill would be permanent. The President's proposal offers protection for our health, the health of our children, and our natural and cultural resources.

Title VI and Title VII

Title VI would enhance and clarify EPA's enforcement capabilities under the Act. The bill would expand administrative enforcement under the Act to give EPA authority to conduct administrative penalty actions in appropriate cases (with penalties up to $200,000, or higher if agreed upon between EPA and the Department of Justice). In addition, the bill would authorize EPA to implement a system of field citations or "tickets" of up to $5,000 for minor violations that EPA inspectors view in the field.

Provisions contained in this title would further enhance enforcement by clarifying that EPA need not prove 30 days of continuous violation before it can issue an administrative order or commence a civil enforcement action. In addition, Title VI would provide enhanced civil and also criminal penalties for violations of emergency orders, and would bring the penalty provisions for violating emergency orders in line with other penalty provisions of the Act. The bill would stiffen criminal sanctions (e.g., longer imprisonment, higher fines, and double sanctions) to help achieve attainment of the Clean Air Act's goals. Additional enforcement provisions relating to mobile sources, including anti-tampering provisions, are contained in Title II.

Title VII contains a small number of miscellaneous provisions. Most important is a provision establishing a board to investigate the release of chemicals to the air where such authority is not already in place.

* * * * *

This proposed legislation would make deep, early cuts in air pollution, and would continue that with steady, tangible progress forward into the 21st century. During his campaign, President Bush promised the American people that his Administration would work to protect the environment and to ensure clean air for all Americans. Enactment of the proposal that I have discussed with you today will be a major step in fulfilling that promise. I urge that these important proposals be carefully considered and enacted. We owe the people of our great Nation nothing less.

Mr. Chairman, thank you for your invitation to present testimony before this Subcommittee. This has been a welcome opportunity to discuss the "Clean Air Act Amendments of 1989." I would be pleased to answer any questions that you may have.

NOV 3 1989

ANSWERS TO QUESTIONS FROM SENATOR MITCHELL

Question 1.

The Bush bill requires specific numbers of vehicles to be produced, sold, and distributed by certain dates

500,000 in model year 1995,
750,000 in 1996, and
1,000,000 in each year 1997-2004

Will these requirements be divided between auto manufacturers by the EPA, and how will the EPA compel the manufacturers to make those cars?

Answer

Yes, the Bush bill establishes a clean-fueled vehicle sales requirement. Automobile manufacturers would be required to sell a certain number of clean-fueled vehicles, or else obtain credits for doing so. The precise form the requirement would take is left for EPA to establish by regulation. One possible approach is for the aggregate sales requirement to be apportioned to individual manufacturers on the basis of each manufacturer's light vehicle sales in the affected urban areas. Based on the information currently available, we estimate that manufacturers would have to sell the following fractions of clean-fueled vehicles in the affected urban areas: 15 percent in 1995, 22.5 percent in 1996, and 30 percent in 1997 through 2004.

Question 2.

Methanol will be available at fewer filling stations than gasoline during the lifetime of the Bush program, and methanol's lower energy content per gallon means that drivers will have to refuel more often. There have also been safety concerns associated with methanol. Given these constraints, why do you expect consumers to buy methanol-fueled vehicles?

Answer

Convenient clean fuel availability is essential to the success of the program, and the Bush bill requires that at a minimum all service stations in the affected urban areas with monthly throughputs of 50,000 gallons or more offer for sale at least one clean fuel. This requirement will affect approximately 40 percent of all stations in a typical urban area, which distribute a majority of petroleum fuels sold in that area. Range with a flexible fuel vehicle (FFV) on methanol will, of course, be approximately half that of the FFV on gasoline, but we expect that auto manufacturers will increase fuel tank size on FFVs so that the range is reduced as little as possible. (Although methanol is less dense, it is slightly more energy efficient, which will help somewhat.)

We believe consumers will be willing to purchase clean-fueled vehicles. A methanol FFV, for example, will look like a gasoline vehicle and will be able to operate on gasoline, but will have the attractive flexibility of being able to operate (with somewhat improved performance) on a second, cleaner fuel that will be conveniently available. With respect to vehicle and fire safety, methanol fires are much less likely to occur. When a methanol fire occurs, it burns less violently than a gasoline fire. The one concern is that a methanol flame is invisible in bright sunlight, but research is ongoing to develop an additive for luminosity. Another concern is the potential for methanol to ignite while confined in a fuel tank; research is also in progress to address this concern. Because methanol is highly toxic when ingested, precautions are needed to prevent fuel siphoning.

Question 3.

> If automobile dealers are unable to sell methanol-fueled cars, what kind of penalties will be imposed? Is it fair to penalize dealers if their customers continue to prefer cars that use gasoline?

Answer

The automobile sales requirement will apply to automotive manufacturers, not to individual dealers. The manufacturers will be required to sell a certain percentage of clean-fueled vehicles. This requirement is important because it will provide a very strong motivation for manufacturers to design attractive clean-fueled vehicles, and to price and promote such vehicles so as to ensure the necessary sales. As stated above, clean-fueled vehicles will not be "exotic," or different in any negative way, and we believe that if government and industry are both behind the program, consumers will support the program and penalties should not be necessary. In the event penalties become necessary, the bill provides for the same maximum per car penalty ($25,000) as is available for other vehicle-related violations.

Question 4.

The Bush bill requires service stations within the areas affected by the methanol program to sell methanol or any other fuel which auto manufacturers build cars to use. But certainly some of the drivers who buy these cars plan to drive outside of the affected areas. The bill allows the Administrator to compel service stations to sell methanol on "major nationwide transportation corridors." But some areas inevitably will not be served by these corridors. And the bill does not even require the Administrator to make the supply of methanol widely available on major transportation corridors. What will happen to drivers who want to leave the areas in which methanol is available?

Answer

In the first few years of the program, when fuel is only conveniently available in the affected urban areas, we expect that flexible or dual-fuel vehicles will be marketed nearly exclusively (with the exception of some centrally-fueled fleet vehicles). Flexible or dual-fuel vehicles would utilize gasoline when they are outside of the affected urban areas. EPA would have the authority to require clean fuel availability in major nationwide transportation corridors, and would do so when it became clear that automotive manufacturers were ready to market vehicles dedicated to clean fuels. Even then, we would expect dedicated clean-fueled vehicles to be sold primarily in the urban areas where clean fuels are most widely available, which is desirable in terms of their clean air benefits.

Question 5.

The EPA estimates that the price of methanol fuel produced in large volumes will be 55 to 57 cents per gallon. But since each gallon on methanol has only one half the energy content as a gallon of gasoline, drivers will have to spend about $1.12 to buy enough methanol to drive as far as they could on a gallon of gasoline. Energy prices are always difficult to predict in advance, but I can say with some certainty that methanol prices may be more expensive than gasoline. If auto manufacturers produce dual fueled vehicles -- which can use methanol or gasoline -- and methanol is more expensive than gasoline, why would anybody use methanol at all?

Answer

We agree that most consumers would not utilize a clean fuel if it were considerably more expensive than gasoline. Some higher cost may be acceptable to some consumers if the more expensive fuel yields sufficiently higher performance, as would be expected, for example, with methanol in a flexible fuel vehicle (premium gasoline accounts for about one-quarter of all gasoline sold today). In any case, it is not clear what the price of methanol or any other clean fuel will be relative to that of gasoline in the late 1990s. The concept embodied in the Bush bill is to let the marketplace work the relative prices out. To that extent, if methanol or other clean fuels do in fact turn out to be more expensive, the States with affected urban areas are obligated by the bill to ensure that use of the clean fuels is economic from the standpoint of the vehicle user. A state, for example, could adopt fuel sales requirements similar to the automobile sales requirement.

Question 6.

A number of leading authorities say that methanol may not produce the air quality benefits that many people hope. Most people expect that methanol will be blended with a small portion of gasoline, because cars using unblended methanol are difficult to start in cold weather, and frequently stall. When blended with gasoline, methanol releases about the same amount of carbon monoxide and oxides of nitrogen as does pure gasoline. Methanol releases fewer unburned hydrocarbons, but more hydrocarbons may evaporate into the air without being burned. A report by the OTA, soon to be released, is expected to conclude that methanol may actually increase ozone formation. A report released by Sierra Research says that methanol testing data are unreliable because most tests have been made on low mileage vehicles (p.5, source attached). And because methanol vehicles emit large amounts of slowly reactive hydrocarbons, short-term benefits would disappear in the course of multiday pollution episodes, which are not uncommon in the Northeast. Hydrocarbons are also transported between cities, where they have additional time to react. Even the research at Carnegie Mellon University often cited in favor of methanol concludes that peak ozone levels on the third day of an episode in Los Angeles would be only 13 percent lower if every car and truck in the region used methanol. How do you respond?

Answer

The urban ozone and air toxics reductions that we project from implementation of the clean fuels program in the Bush bill are entirely independent of what any one fuel can or cannot achieve. The Bush bill states that "the Administrator shall base the performance standards on the long-term reductions in ozone-producing and toxic air emissions that, in his judgment, may reasonably be anticipated to result from the use of clean alternative fuels formulated to provide maximum reductions of such emissions." (Emphasis added) Therefore, you can be assured that EPA would establish aggressive emissions performance standards. In fact, we have been clear in public statements that we would expect to establish a set of phase one standards involving a 30 percent reduction in hydrocarbons and a 40 percent reduction in air toxics and a set of phase two standards involving an 80 percent reduction in hydrocarbons and a 90 percent reduction in air toxics, all relative to a gasoline car meeting all of the other standards contained in the Bush bill. We believe methanol, ethanol, CNG and propane in vehicles optimized for their use can obtain those reductions. The Bush bill is fuel neutral and performance-based.

To be sure, there are differing positions as to whether methanol will be able to meet such large emission reduction targets. All of the organizations that have tested large numbers of methanol vehicles, including EPA, the California Air Resources Board, Ford, and General Motors, seem to agree that methanol offers large emissions reductions. The recent OTA report, entitled "Catching Our Breath," seems to agree as well. (We are unaware of the contents of any "soon-to-be-released" OTA report, as referred to in your question.) There are many theoretical and engineering reasons why one would expect lower hydrocarbons (low volatility equals negligible evaporative emissions, methanol itself has such a low reactivity, methanol combustion is inherently more efficient, etc.) and air toxics emissions (methanol itself is not carcinogenic and does not need octane-enhancing additives like benzene).

While a detailed discussion of the Carnegie Mellon multiday-ozone study cannot be done in a short response, it must be pointed out that a 13 percent reduction in peak ozone levels due to methanol substitution is very impressive. Assuming that vehicles would be responsible for approximately one-quarter of all hydrocarbons in Los Angeles in the post-2000 period, the use of methanol would be reducing motor vehicle hydrocarbons by approximately 50 percent. This would be equivalent to taking one-half of all gasoline vehicles off the road. We do not know of any other program other than greatly restricting the use of the personal automobile, that can offer this type of air quality improvement.

Question 7.

An OTA report released this year examined the cost-effectiveness of methanol conversion and seven other strategies which can be used to control volatile organic compounds, and found that methanol would cost $30,000 per ton removed from the air, more than five times more expensive than any other strategy. How can you justify spending this much on methanol when the Bush bill does not extend the useful life of automobiles to 10 years/100,000 miles, a relatively inexpensive strategy? The Consumer Federal of America reports that this warrantee coverage costs auto manufacturers about one dollar per vehicle (see attached letter).

Answer

It is important to note that the Administration's bill does not favor any one alternative fuel over any other. We disagree with OTA's cost effectiveness values. Their numbers were the result of a very cursory analysis. While OTA used emissions reductions very similar to our projections, its cost numbers are very high. They assumed a methanol production cost of 40 to 60 cents per gallon, while our midpoint estimate is 35 cents per gallon and analyses by the Department of Energy and the California Energy Commission are also in the 35 to 40 cents range. OTA also used very high distribution and service station markup costs that are not appropriate for a clean fuels program like that contained in the Bush bill that would involve economies of scale in both fuel production and distribution. It is our understanding that OTA is now preparing a more detailed analysis of methanol fuel economics.

As for the issue of useful life, the Administration's proposal includes an entire package of motor vehicle controls that present a challenge to automakers and achieve very significant emission reductions.

Question 8.

There are only 1,300 cars and trucks in the world today which use methanol fuel. Yet the Bush bill would add one million new methanol vehicles to the road each year by 1997. Given that the benefits of methanol are so uncertain, wouldn't an interim smaller, experimental program in only the most serious nonattainment areas make more sense?

Answer

Again, we must emphasize that the Bush bill is fuel neutral. It requires one million clean fuel vehicles that can meet the emissions performance standards established by EPA regulation. Clearly, automotive manufacturers will choose the engine technology/fuel system that they believe will best satisfy both the emissions performance standards and the full range of consumer attributes. These could be ethanol, compressed natural gas, methanol, propane, electricity, or reformulated gasoline vehicles, as long as they met the emissions standards.

We believe we are concentrating the program only on those cities with the most serious ozone problems -- the nine largest cities that are at least 50 percent above the health-based ozone standard. A small experimental program is unnecessary, since sufficient demonstration programs have already been conducted. Such a program would achieve no significant environmental benefits.

Question 9.

Methanol vehicles today emit up to 10 times as much formaldehyde as gasoline vehicles, according to CRS (source attached). Formaldehyde is a skin and respiratory irritant, and a probable carcinogen. How would you address this problem?

Answer

There is a lot of misinformation about formaldehyde and we appreciate the opportunity to clear it up. Formaldehyde is an irritant, a probable human carcinogen, and highly photochemically reactive. We have devoted many resources to analyzing the impacts on ambient formaldehyde of a large scale methanol vehicle program, and will continue to study this issue.

Formaldehyde is generated by the combustion of all fossil fuels but, other things being equal, methanol combustion yields higher levels of tailpipe formaldehyde emissions than does gasoline combustion. But it is critical to note that motor vehicle related formaldehyde is generated in two ways: directly through the tailpipe and indirectly as the product of reactive hydrocarbons and atmospheric photochemistry. While methanol vehicles emit more of the direct, tailpipe formaldehyde, they emit far less hydrocarbons and thus generate less of the indirect formaldehyde. Our analyses suggest that overall ambient formaldehyde levels would remain approximately constant, or even decrease somewhat, if methanol vehicles were to replace gasoline vehicles. In addition, direct formaldehyde emissions from methanol vehicles could be controlled to levels comparable to those from gasoline vehicles if necessary.

It is also important to note that methanol vehicles would emit essentially none of the leading air toxics: benzene, butadiene, and polycyclic organic matter. Thus, methanol vehicles would greatly reduce the exposure to air toxics from motor vehicles.

II

101st CONGRESS
1st Session

S. 1490

To amend the Clean Air Act to provide for the attainment and maintenance of the national ambient air quality standards, the control of toxic air pollutants, the prevention of acid deposition, and other improvements in the quality of the Nation's air.

IN THE SENATE OF THE UNITED STATES

August 3 (legislative day, January 3), 1989

Mr. Chafee (for himself, Mr. Simpson, Mr. Durenberger, Mr. Warner, Mr. Jeffords, Mr. Humphrey, Mr. Boschwitz, Mr. D'Amato, Mr. Dole, Mr. Domenici, Mr. Exon, Mr. Gorton, Mr. Hatch, Mr. Hatfield, Mrs. Kassebaum, Mr. McCain, Mr. McClure, Mr. Murkowski, Mr. Riegle, Mr. Rudman, Mr. Stevens, Mr. Thurmond, Mr. Wallop, Mr. Breaux, and Mr. Levin) introduced the following bill; which was read twice and referred to the Committee on Environment and Public Works

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A BILL

To amend the Clean Air Act to provide for the attainment and maintenance of the national ambient air quality standards, the control of toxic air pollutants, the prevention of acid deposition, and other improvements in the quality of the Nation's air.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE AND TABLE OF CONTENTS.

This Act may be cited as the "Clean Air Act Amendments of 1989".

TABLE OF CONTENTS

TITLE I—PROVISIONS FOR ATTAINMENT AND MAINTENANCE OF AMBIENT AIR QUALITY STANDARDS

Sec. 101. General planning requirements.
Sec. 102. General provisions for nonattainment areas.
Sec. 103. Additional provisions for ozone nonattainment areas.
Sec. 104. Additional provisions for carbon monoxide nonattainment areas.
Sec. 105. Additional provisions for particulate matter (PM–10) nonattainment areas.
Sec. 106. Additional provisions for areas designated nonattainment for sulfur oxides, nitrogen dioxide, or lead.
Sec. 107. Provisions related to Indian tribes.
Sec. 108. Miscellaneous provisions.
Sec. 109. Conforming amendments.

TITLE II—PROVISIONS RELATING TO MOBILE SOURCES

Sec. 201. Clean fuel requirements.
Sec. 202. Emissions of hydrocarbons, carbon monoxide and oxides of nitrogen from passenger cars.
Sec. 203. Emissions of hydrocarbons and carbon monoxide from light-duty trucks.
Sec. 204. Carbon monoxide emissions at cold temperatures.
Sec. 205. Evaporative emissions.
Sec. 206. Mobile source-related air toxics.
Sec. 207. Emission control diagnostics systems.
Sec. 208. Heavy-duty trucks.
Sec. 209. Non-road engines and vehicles.
Sec. 210. Vehicle certification.
Sec. 211. In-use compliance—recall.
Sec. 212. Compliance program fees.
Sec. 213. Information collection.
Sec. 214. Fuel volatility.
Sec. 215. Diesel fuel sulfur content.
Sec. 216. Nonroad fuels.
Sec. 217. Fuel waivers.
Sec. 218. Market-based alternative controls.
Sec. 219. Preemption of State fuels regulations.
Sec. 220. Enforcement.
Sec. 221. Technical amendments.

TITLE III—HAZARDOUS AIR POLLUTANTS

Sec. 301. Technology-based standards for hazardous air pollutants.

TITLE IV—PERMITS

Sec. 401. Permits.

TITLE V—ACID DEPOSITION CONTROL

Sec. 501. Acid deposition control.

TITLE VI—PROVISIONS RELATING TO ENFORCEMENT

Sec. 601. Section 113 enforcement.
Sec. 602. Reviewability of administrative orders.

Sec. 603. Compliance certification.
Sec. 604. Contractor inspections.
Sec. 605. Administrative enforcement subpoenas.
Sec. 606. Enforcement of administrative orders.
Sec. 607. Scope of emergency orders.
Sec. 608. Contractor listings.
Sec. 609. Judicial review pending reconsideration of regulation.
Sec. 610. Citizen suits.
Sec. 611. Enhanced implementation and enforcement of new source review requirements.
Sec. 612. Movable stationary sources.
Sec. 613. Enforcement of new titles of the Act.

TITLE VII—MISCELLANEOUS PROVISIONS

Sec. 701. Grants for support of air pollution planning and control programs.
Sec. 702. Annual report repeal.
Sec. 703. NOx and VOC study.
Sec. 704. Review and revision of criteria and standards.
Sec. 705. Air Pollutant Release Investigation Board.

TITLE I—PROVISIONS FOR ATTAINMENT AND MAINTENANCE OF NATIONAL AMBIENT AIR QUALITY STANDARDS

SEC. 101. GENERAL PLANNING REQUIREMENTS.

(a) IMPLEMENTATION PLAN ELEMENTS.—(1) Section 110 of the Clean Air Act is amended by striking paragraph 110(a)(1) through subparagraph 110(a)(3)(A) and inserting the following:

"IMPLEMENTATION PLANS IN GENERAL

"SEC. 110. (a) INITIAL PLANS.—After promulgating a new or revised national ambient air quality standard under section 109, the Administrator may require any State to submit a plan that meets any of the requirements of subsection (d). The State must submit such plan within nine months of the notification by the Administrator of such requirement, or within such longer period as the Administrator may prescribe.

"(b) DESIGNATIONS.—

"(1) DESIGNATIONS GENERALLY.—

"(A) INITIAL DESIGNATIONS.—By such date as the Administrator may reasonably require after promulgating a new or revised national ambient air quality standard for any pollutant under section 109, the Governor of each State shall (and at any other time the Governor of a State deems appropriate the Governor may) submit to the Administrator a list of all areas (or portions thereof) in the State, designating as—

"(i) nonattainment, any area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the national primary or secondary ambient air quality standard for the pollutant,

"(ii) attainment, any area (other than an area identified in clause (i)) that meets the national primary or secondary ambient air quality standard for the pollutant, or

"(iii) unclassifiable, any area that cannot be classified on the basis of available information as meeting or not meeting the national primary or secondary ambient air quality standard for the pollutant.

The Administrator may not require the Governor to submit the required list sooner than one hundred and twenty days after promulgating a new or revised national ambient air quality standard.

"(B) STATE SUBMISSION AND EFFECTIVENESS OF DESIGNATIONS.—

"(i)(I) Upon promulgation or revision of a national ambient air quality standard, the Administrator shall promulgate the designations of all areas (or portions thereof) submitted under subparagraph (A) as expeditiously as practicable, but in no case later than two years from the date of promulgation of the new or revised national ambient air quality standard. Such period may be extended for up to one year in the event the Administrator has insufficient information to promulgate the designations.

"(II) In making the promulgations required under subclause (I), the Administrator may make such modifications as he deems necessary to the designations of the areas (or portions thereof) submitted under subparagraph (A) (including to the boundaries of such areas or portions thereof). Whenever the Administrator intends to make a modification, he shall notify the State and provide such State with an opportunity to demonstrate why any proposed modification is inappropriate. The Administrator shall give such notification no later than one hundred and twenty days prior to the date he promulgates the designation, as may be modified. If the Governor fails to submit the list in whole or in part, as required under subparagraph (A), the Administrator shall promulgate the designation that he deems appropriate for any area (or portion thereof) not designated by the State.

"(III) If the Governor of any State, on his own motion, under subparagraph (A), submits a list of areas (or portions thereof) in the State designated as nonattainment, attainment, or unclassifiable, the Administrator shall act on such designations in accordance with the procedures under paragraph (3)(B) (relating to redesignation).

"(ii) A designation for an area (or portion thereof) made pursuant to this subsection shall remain in effect until the area (or portion thereof) is redesignated pursuant to paragraph (3).

"(C) CURRENT DESIGNATIONS.—Any area designated with respect to any air pollutant under the provisions of—

"(i) section 107(d)(1) (A), (B), or (C), as in effect immediately before the date of enactment of the Clean Air Act Amendments of 1989, is hereby designated, by operation of law, as a nonattainment area for such pollutant within the meaning of clause (A)(i);

"(ii) section 107(d)(I)(E), as in effect immediately before the date of enactment of the Clean Air Act Amendments of 1989, is hereby designated, by operation of law, as an attainment area for such pollutant within the meaning of clause (A)(ii); and

"(iii) section 107(d)(1)(D), as in effect immediately before the date of enactment of the Clean Air Act Amendments of 1989, is hereby designated, by operation of law, as an unclassifiable area for such pollutant within the meaning of clause (A)(iii).

"(2) PROCEDURE.—

"(A) The Administrator shall publish a notice in the Federal Register promulgating any designation under paragraph (1), (4)(A), or (5), or announcing any designation under paragraph (4)(B), or promulgating any redesignation under paragraph (3).

"(B) Promulgation or announcement of a designation under paragraph (1), (4) or (5) shall not be subject to the provisions of sections 553 through 557 of title 5 of the United States Code (concerning notice and comment).

"(3) REDESIGNATION.—

"(A)(i) Subject to the requirements of subparagraph (C), and on the basis of air quality data, planning and control considerations, or any other considerations the Administrator deems appropriate, the Administrator may at any time notify the Governor of any State that available information indicates that the designation of any area or portion of an area within the State or interstate area should be revised. In issuing such notification to the Governor, the Administrator shall provide such information as the Administrator may have available.

"(ii) No later than one hundred and twenty days after receiving such notification, the Governor must submit to the Administrator such redesignation, if any, of the appropriate area (or areas) or portion thereof within the State or interstate area, as the Governor considers appropriate.

"(iii) No later than one hundred and twenty days after the date described under clause (ii), the Administrator shall promulgate the redesignation, if any, of the area or portion thereof, submitted by the Governor in accordance with clause (ii), making such modifications as he may deem necessary, in the same manner and under the same procedure as under subclause (1)(B)(i)(ii), except that the phrase 'sixty days' shall be substituted for the phrase 'one hundred and twenty days' in that subclause. If the Governor does not submit, in accordance with clause (ii), a redesignation for an area (or portion thereof) identified by the Administrator under clause (i), the Administrator shall promulgate such redesignation, if any, that he deems appropriate.

"(B) The Governor of any State may, on his own motion, submit to the Administrator a revised designation of any area or portion thereof within the State. Within eighteen months of receipt of a complete State redesignation submittal, the Administrator shall approve or deny such redesignation. The submission of a redesignation by a Governor shall not affect the effectiveness or enforceability of the applicable implementation plan for the State.

"(C) REDESIGNATION FROM NONATTAINMENT TO ATTAINMENT.—The Administrator may not promulgate a redesignation of a nonattainment area (or portion thereof) to attainment unless—

"(i) the Administrator determines that the area has attained the national ambient air quality standard;

"(ii) the Administrator has fully approved the applicable implementation plan for the area under subsection (e);

"(iii) the Administrator determines that the improvement in air quality is due to permanent and enforceable reductions in emissions resulting from implementation of the applicable implementation plan and applicable Federal air pollutant control regulations and other permanent and enforceable reductions;

"(iv) the Administrator has fully approved a maintenance plan for the area as meeting the requirements of section 175; and

"(v) the State containing such area has met all requirements applicable to the area under sections 176 and 110 (d) (4) and (8), and (e)(4).

"(D) The Administrator shall not promulgate any redesignation of any area (or portion thereof) from nonattainment to unclassifiable.

"(4) NEW DESIGNATIONS FOR OZONE, CARBON MONOXIDE (CO) AND PARTICULATE MATTER (PM–10).—

"(A) REQUIREMENT TO DESIGNATE.—

"(i) Within one hundred and twenty days of the date of enactment of the Clean Air Act Amendments of 1989, each Governor of each State shall submit to the Administrator a list that designates, affirms or reaffirms the designation of, or redesignates (as the case may be) all areas (or portions thereof) of his State as attainment, nonattainment, or unclassifiable with respect to the national ambient air quality standards for ozone and carbon monoxide.

"(ii) No later than one hundred and twenty days after the date the Governor is required to submit the list of areas (or portions thereof) required under clause (i), the Administrator shall promulgate such designations, making such modifications as he may deem necessary, in the same manner, and under the same procedure, as under subclause (1)(B)(i)(II), except that the phrase 'sixty days' shall be substituted for the phrase 'one hundred and twenty days' in that subclause. If the Governor does not submit, in accordance with clause (i), a designation for an area (or portion thereof), the Administrator shall promulgate the designation that he deems appropriate.

"(B) PM–10 DESIGNATIONS.—By operation of law, until redesignation by the Administrator pursuant to paragraph (3)—

"(i) areas identified in 52 Federal Register 29383 (Aug. 7, 1987) as Group I areas, except to the extent that such identification was modified by the Administrator prior to the date of enactment of the Clean Air Act Amendments of 1989, are hereby designated nonattainment for PM–10;

"(ii) any county containing a site for which air quality monitoring data show a violation of the national ambient air quality standard for PM–10 before January 1, 1989, as determined under part 50, appendix K of title 40 of the Code of Federal Regulations, is hereby designated nonattainment for PM–10; and

"(iii) all areas of the country not described in clauses (i) or (ii) are hereby designated unclassifiable for PM–10.

Any designation for particulate matter (measured in terms of total suspended particulates) that the Administrator promulgated pursuant to section 107(d) (as in effect immediately before the date of enactment of the Clean Air Amendments of 1989) shall remain in effect for purposes of implementing the maximum allowable increases in concentrations of particulate matter (measured in terms of total suspended particulates) pursuant to section 163(d), until the Administrator determines that such designation is no longer necessary for that purpose.

"(5) DESIGNATIONS FOR LEAD.—The Administrator may, in his discretion at any time he deems appropriate, require a State to designate areas (or portions thereof) with respect to the national ambient air quality standard for lead, in accordance with the procedures under paragraph (1) A–B except that the term 'two years' in subparagraph (B)(i)(I) shall be replaced by 'one year'.

"(c) MAINTENANCE PLANS.—

"(1) PLAN SUBMISSION.—

"(A) INITIAL PLAN.—For any area designated attainment or unclassifiable with respect to a national ambient air quality standard, the Administrator may require the State containing such area to submit an implementation plan (including such emissions inventories as he may prescribe) that provides for maintenance of such standard for such period as he may prescribe.

"(B) SUBSEQUENT PLAN.—At any time before or after the expiration of the initial period for maintenance of a national ambient air quality standard prescribed pursuant to subparagraph (A), the Administrator may require the State to submit an additional plan or plans (including emissions inventories) providing for maintenance of such national ambient air quality standard for such additional periods as he may reasonably prescribe.

"(2) Plan requirements.—Any plan required to be submitted pursuant to paragraph (1) shall meet the applicable requirements of subsection (d) (concerning general plan requirements).

"(3) Deadlines.—Any plan required to be submitted pursuant to paragraph (1) shall be submitted by the State in accordance with such schedules as the Administrator may reasonably prescribe.

"(d) Requirements for All Implementation Plan Submittals.—Each implementation plan (or revision thereof) submitted by a State under this Act shall be adopted by the State after reasonable notice and public hearing and, except as otherwise provided under subsection (a), shall—

"(1) include enforceable emission limitations or other control measures, means, or techniques, including economic incentives (including, but not limited to, fees, marketable permits, and auctions of emissions rights), as well as schedules and timetables for compliance, as may be necessary or appropriate to meet the applicable requirements of this Act;

"(2) provide for establishment and operation of appropriate devices, methods, systems, and procedures necessary to—

"(A) monitor, compile, and analyze data on ambient air quality, and

"(B) upon request, make such data available to the Administrator;

"(3) include a program to provide for the enforcement of the measures described in paragraph (1), and regulation of the modification, construction, and operation of any stationary source within such region as necessary to assure that national ambient air quality standards are achieved, including a permit program as required in parts C and D;

"(4) contain adequate provisions—

"(A) prohibiting any source or other type of emissions activity within the State from emitting any air pollutant in amounts which will—

"(i) contribute significantly to nonattainment in, or interfere with maintenance by, any other State of any such national primary or secondary ambient air quality standard, or

"(ii) interfere with measures required to be included in the applicable implementation plan for any other State under part C to prevent significant deterioration of air quality or to protect visibility, and

"(B) insuring compliance with the requirements of sections 126 and 115, relating to interstate and international pollution abatement;

"(5) provide—

"(A) necessary assurances that the State (or, except where the Administrator deems inappropriate, the general purpose local government or governments, or a regional agency designated by the State or general purpose local governments for such purpose) will have adequate personnel, funding, and authority under State (and, as appropriate, local) law to carry out such implementation plan (and is not prohibited by any provision of Federal law from carrying out such implementation plan), including a statement from the attorney general (or the attorney for those relevant State (or, as appropriate, local) air pollution control agencies which have independent legal counsel) that the laws of such State (or locality) provide adequate authority to carry out such implementation plan, "(B) requirements that the State comply with the requirements respecting State boards under section 128, and

"(C) necessary assurances that, where the State has relied on a local or regional government, agency, or instrumentality for the implementation of any plan provision, the State has responsibility for ensuring adequate implementation of such plan provision;

"(6) require, as may be prescribed by the Administrator—

"(A) the installation, maintenance, and replacement of equipment, and the implementation of other necessary steps, by owners or operators of stationary sources to monitor emissions from such sources,

"(B) periodic reports on the nature and amounts of emissions and emissions-related data from such sources, and

"(C) correlation of such reports by the State agency with any emission limitations or standards established pursuant to this Act, which reports shall be available at reasonable times for public inspection;

"(7) provide for authority comparable to that in section 303, and adequate contingency plans to implement such authority;

"(8) provide for revision, after public hearing, of such plan—

"(A) from time to time as may be necessary to take account of revisions of such national primary or secondary ambient air quality standard or the availability of improved or more expeditious methods of attaining such standard, and

"(B) except as provided in section 110(j)(2), whenever the Administrator finds on the basis of information available to him that the plan is substantially inadequate to attain the national ambient air quality standard which it implements or to otherwise comply with any additional requirements established under this Act;

"(9) in the case of a plan or plan revision for an area designated as nonattainment under subsection (b), meet the applicable requirements of part D (relating to nonattainment areas);

"(10) meet the applicable requirements of section 121 (relating to consultation), section 127 (relating to public notification), and part C (relating to prevention of significant deterioration of air quality and visibility protection);

"(11) provide for—

"(A) the performance of such air quality modeling as the Administrator may prescribe for the purpose of predicting the effect on ambient air quality of any emissions of any air pollutant for which the Administrator has established a national ambient air quality standard, and

"(B) upon request, the submission of data related to such air quality modeling to the Administrator; and

"(12) require the owner or operator of each major stationary source to pay to the permitting authority, as a condition of any permit required under this chapter, a fee sufficient to cover—

"(A) the reasonable costs of reviewing and acting upon any application for such a permit, and

"(B) if the owner or operator receives a permit for such source, the reasonable costs of implementing and enforcing the terms and conditions of any such permit (not including any court costs or other costs associated with any enforcement action), until such fee requirement is superseded with respect to such sources by the Administrator's approval of a fee program under section 402(b)(3).

Compliance with the applicable requirements of title IV (relating to operating permits) shall constitute compliance with the corresponding provisions of this subsection.

"(e) ENERGY PROTECTION AGENCY ACTION ON PLAN SUBMISSIONS.—

"(1) COMPLETENESS OF PLAN SUBMISSIONS.—

"(A) COMPLETENESS CRITERIA.—The Administrator shall promulgate minimum criteria that any plan submission, except as provided under subparagraph (D), must meet before the Administrator is required to act on such submission under this subsection.

"(B) COMPLETENESS FINDING.—Except as provided under subparagraph (D), within sixty days of the Administrator's receipt of a plan or plan revision, but no later than six months after the date, if any, by which a State is required to submit the plan or revision, the Administrator shall determine whether each part of the plan or revision meets the minimum criteria established pursuant to subparagraph (A).

"(C) EFFECT OF FINDING OF INCOMPLETENESS.—Where the Administrator determines that a plan submission (or part thereof) does not meet the minimum criteria established pursuant to subparagraph (A), the State shall be treated as not having made the submission (or, in the Administrator's discretion, part thereof).

"(D) INITIAL PLAN PROVISIONS.—Notwithstanding any other provision of this paragraph, the Administrator may, but is not required to, make any determination under subparagraph (B) with respect to any plan or plan revision required to be submitted under subsection (a).

"(2) DEADLINE FOR ACTION.—Within twelve months of submission of a plan or plan revision (or, in the Administrator's discretion, part thereof) that meets the minimum criteria established pursuant to paragraph (1), if applicable (or, if those criteria are not applicable, within twelve months of submission of the plan or revision), the Administrator shall approve or disapprove the plan or plan revision (or such part thereof).

"(3) FULL AND PARTIAL APPROVAL AND DISAPPROVAL.—In the case of any submittal that the Administrator is required to approve or disapprove under paragraph (2), the Administrator shall—

"(A) approve such submittal as a whole if it meets all of the applicable requirements of this Act, or

"(B) disapprove the submittal in whole (or approve it in part and, simultaneously with such partial approval or subsequently within the twelve-month period under paragraph (2), disapprove it in part) if it does not meet all of the applicable requirements of this Act.

"(4) CALLS FOR PLAN REVISIONS.—Whenever the Administrator finds that the applicable implementation plan for any area is substantially inadequate to attain or maintain the relevant national ambient air quality standard, to mitigate adequately the interstate pollutant transport described in section 176, or to otherwise comply with any requirement of this Act, the Administrator shall require the State to revise the plan as necessary to correct such inadequacies. The Administrator shall notify the State of the inadequacies, and may establish reasonable deadlines for the submission of such plan revisions. Any finding under this paragraph shall, to the extent the Administrator deems appropriate, subject the State to the requirements of this Act to which the State was subject when it developed and submitted the plan for which such finding was made, except that the Administrator may adjust any dates applicable under such requirements as appropriate (except that the Administrator may not adjust any attainment date prescribed under part D, unless such date has elapsed).

"(5) CORRECTIONS.—Whenever the Administrator determines that his action approving, disapproving, or promulgating any plan or plan revision (or part thereof), area designation, redesignation, classification, or reclassification was in error, the Administrator may revise such action as appropriate without requiring any further submission from the State.

"(f) PLAN REVISIONS.—The Administrator shall approve a revision to a plan if, and only if, the revision (or portion thereof) will not interfere with any applicable requirement concerning attainment and reasonable further progress (as defined in section 170), or any other applicable requirement of this Act.

"(g) SANCTIONS AND FEDERAL IMPLEMENTATION PLANS.—The Administrator may apply any of the sanctions listed in section 179(b), or promulgate a Federal implementation plan, at any time (or at any time after), he—

"(1) finds that a State has failed, for an area designated nonattainment under section 110(b), to submit one or more of the elements required by the provisions of this Act applicable to such an area, or has failed to make a submission for such an area that satisfies the minimum criteria established in relation to any such element under section 110(e)(1)(A),

"(2) disapproves a submission in whole or in part, under section 110(e), for an area designated nonattainment under 110(b), based on the submission's failure to meet one or more of the elements required by the provisions of this Act applicable to such an area,

"(3)(A) determines that a State has failed to make any submission as may be required under this Act, other than one described under paragraph (1) or (2), including but not limited to an adequate maintenance plan, or has failed to make any submission, as may be required under this Act, other than one described under paragraph (1) or (2), that satisfies the minimum criteria established in relation to such submission under section 110(e)(1)(A), or

"(B) disapproves, in whole or in part, a submission described under subparagraph (A), or

"(4) finds that any requirement of an approved plan (or approved part of a plan) is not being implemented.".

The Administrator may apply such sanction or sanctions, or promulgate a Federal implementation plan, with respect to any portion of the State he determines reasonable and appropriate for the purpose of ensuring that the requirements of this Act relating to such plan or plan revision are met.

"(h) SAVINGS CLAUSES.—

"(1) PLAN PROVISIONS UNDER EXISTING STANDARDS.—

"(A) RETENTION OF APPROVED PLAN PROVISIONS.—Any provision of any applicable implementation plan that was approved or promulgated by the Administrator pursuant to section 110 as in effect prior to the date of enactment of the Clean Air Act Amendments of 1989 shall remain in effect as part of such applicable implementation plan, unless a revision to such provision is approved or promulgated by the Administrator pursuant to this Act.

"(B) ATTAINMENT DATES.—For any area not designated nonattainment within the meaning of section 110(b), any plan or plan revision submitted or required to be submitted by a State—

"(i) in response to the promulgation or revision of a national primary ambient air quality standard, or

"(ii) in response to a finding of substantial inadequacy under section 110(a)(2)(H)(ii) as in effect immediately prior to the date of enactment of the Clean Air Act Amendments of 1989,

must provide for attainment of the primary national ambient air quality standards within three years of the date of enactment of the Clean Air Act Amendments of 1989 or within five years of issuance of such finding of substantial inadequacy, whichever is later.

"(2) RETENTION OF CONSTRUCTION MORATORIUM IN CERTAIN AREAS.—In the case of an area to which, immediately prior to the date of enactment of the Clean Air Act Amendments of 1989, the prohibition on construction or modification of major stationary sources prescribed in section 110(a)(2)(I) (as in effect immediately prior to the date of enactment of the Clean Air Act Amendments of 1989) applied by virtue of a finding of the Administrator that the State containing such area had not submitted an implementation plan meeting the requirements of section 172(b)(6) (relating to establishment of a permit program) or 172(a)(1) (to the extent such requirements relate to provision for attainment of the primary national ambient air quality standard for sulfur oxides by December 31, 1982) as in effect immediately prior to the date of enactment of the Clean Air Act Amendments of 1989, no major stationary source of the relevant air pollutant or pollutants shall be constructed or modified in such area until the Administrator finds that the plan for such area meets the applicable requirements of section 172(c)(5) (relating to permit programs) or subpart 5 of part D (relating to attainment of the primary national ambient air quality standard for sulfur oxides), respectively.".

(2) Section 110 of the Clean Air Act is amended in subparagraph (a)(3)(B) through paragraph (a)(6) by—

(A) redesignating subparagraph 110(a)(3)(B) as paragraph 110(j)(1) and, in this newly designated paragraph, striking the phrase "paragraph (2) of this subsection" and inserting "subsection (d)";

(B) redesignating subparagraph 110(a)(3)(C) as paragraph 110(j)(2) and, in this newly designated paragraph—

(i) striking the word "subsection" after the phrase "approved under this" and inserting "section",

(ii) striking the reference to subsection (c) and inserting "subsection (g) or section 180",

(iii) striking "section 110(f) or (g)" and inserting "section 110(o) or (p)";

(C) deleting subparagraph 110(a)(3)(D);

(D) deleting paragraph 110(a)(4);

(E) redesignating paragraph 110(a)(5) as subsection 110(k) and, in this newly designated subsection—

(i) redesignating the subparagraphs and clauses therein accordingly,

(ii) in newly designated subparagraph 110(k)(1)(B), striking "subparagraph (B)" and inserting "paragraph (2)",

(iii) in newly designated subparagraph 110(k)(1)(C), striking "section 110(a)" and inserting "this section",

(iv) in newly designated paragraph 110(k)(2), striking "110(c)" and inserting "110(g) or section 180",

(v) in newly designated paragraph 110(k)(3), striking each reference to "this paragraph" and inserting "this subsection", and, striking "section 110(c)(2)(D)(ii)" and inserting "section 110(m)(2)(A)",

(vi) in newly designated paragraph 110(k)(4), striking "this paragraph" and inserting "this subsection", and

(vii) in newly designated paragraph 110(k)(5), striking "this paragraph and paragraph (2)(B)" and inserting "this subsection"; and,

(F) redesignating paragraph 110(a)(6) as subsection 110(1).

(3) Section 110 of the Clean Air Act is amended by deleting subsection (b).

(4) Subsection 110(c) of the Clean Air Act is amended by—

(A) deleting paragraph 110(c)(1);

(B) deleting subparagraph 110(c)(2)(A);

(C) redesignating subparagraph 110(c)(2)(B) as paragraph 110(m)(1), and, in this newly designated paragraph, striking "paragraph (1) of this subsection" and inserting "subsection (g) of this subsection or under section 180";

(D) delete subparagraph 110(c)(2)(C);

(E) redesignating subparagraph 110(c)(2)(D) as paragraph 110(m)(2), redesignating the clauses therein accordingly, and, in this newly designated paragraph, striking "this paragraph" and inserting "this subsection";

(F) redesignating subparagraph 110(c)(2)(E) as paragraph 110(m)(3), and, in this newly designated paragraph, striking "this paragraph" and inserting "this subsection" and inserting "or section 180" after "this section";

(G) redesignating paragraph 110(c)(3) as paragraph 110(m)(4) and, in this newly designated paragraph, striking each reference to "under this subsection" and inserting in lieu thereof "under subsection (g) or section 180";

(H) deleting paragraph 110(c)(4); and

(I) redesignating paragraph 110(c)(5) as paragraph 110(m)(5) and, in that newly designated paragraph, delete "(including the written evidence required by Part D),".

(5) Section 110 of the Clean Air Act is amended by striking subsection 110(d) and inserting the following new paragraph:

"(n)(1) For purposes of this Act, an applicable implementation plan is the portion (or portions) of the implementation plan, or most recent revision thereof, which has been approved under this section, promulgated under subsection (g) or section 180, or promulgated or approved pursuant to regulations promulgated under section 301(d) and which implements the relevant requirements of the Act.".

(6) Section 110 of the Clean Air Act is amended by deleting subsection 110(e).

(7) Subsection 110(f) of the Clean Air Act is redesignated as subsection 110(o).

(8) Section 110 of the Clean Air Act is amended by redesignating subsection 110(g) as subsection 110(p), and, in this newly designated subsection, striking "the required four month period" and inserting "twelve months of submission of the proposed plan revision".

(9) Section 110 of the Clean Air Act is amended by redesignating subsection 110(h) as 110(q) and, in this newly designated subsection—

(A) striking "one year after the date of enactment of the Clean Air Act Amendments of 1977 and annually thereafter" and inserting "five years after the date of enactment of the Clean Air Act Amendments of 1989, and every three years thereafter"; and

(B) striking the second sentence of paragraph (1).

(10) Section 110 of the Clean Air Act is amended by redesignating subsection 110(i) as subsection 110(r) and, in this newly designated subsection—

(A) striking "110 (f) or (g)" and inserting "110 (o) or (p)";

(B) striking "110(c)" and inserting "110(g) or section 180"; and

(C) striking "110(a)(3)" and inserting "110(f)".

(11) Subsection 110(j) of the Clean Air Act is redesignated as subsection 110(s).

(b) FEDERAL FACILITIES.—Section 118(a) of the Clean Air Act is amended by inserting ", including fees that meet the requirements of section 402(b)(3) or any other reasonable service charges that are equally applicable to and paid by facilities owned or operated by State, regional, or local government entities," immediately after the phrase "respecting the control and abatement of air pollution".

(c) STACK HEIGHTS AND DISPERSION TECHNIQUES.—Section 123 of the Clean Air Act is amended by—

(1) revising the second sentence of subsection (a) to read as follows: "The preceding sentence shall not apply with respect to stack heights in existence, or dispersion techniques implemented before December 31, 1970, nor shall it apply to any source that is an 'af-

fected source' under title V, or that is subject to the new source performance standards issued under section 111.";

(2) revising subsection (b) to read as follows:

"(b) For the purposes of this section, the term 'dispersion technique' includes any intermittent or supplemental control of air pollutants, by a major stationary source, varying with atmospheric conditions, but shall not include the use of a single stack for two or more units or sources if incorporated into the original design of the facility.";

(3) inserting "shall equal the height prescribed by formula as established by the Administrator, but" in subsection (c) immediately after "For the purposes of this section such height"; and

(4) Insert "and after pollutant emissions have been controlled to levels equivalent to section 111 standards applicable to the source category" immediately after "as provided under the preceding sentence" in section 123(c).

(d) CONFORMITY OF PROJECTS WITH PLANS.—Section 176 of the Clean Air Act is amended by—

(1) redesignating subsection 176(c) as paragraph 110(i)(1); and

(2) redesignating subsection 176(d) as paragraph 110(i)(2) and, in this newly designated paragraph strik-

ing "those portions of plans prepared under this section" in the first sentence, and inserting "the plan provisions developed, approved, or promulgated under this Act".

SEC. 102. GENERAL PROVISIONS FOR NONATTAINMENT AREAS.

(a) DEFINITIONS AND APPLICABILITY.—

(1) Part D of title I of the Clean Air Act is amended by inserting "SUBPART 1—NONATTAINMENT AREAS IN GENERAL" immediately after the heading "PART D—PLAN REQUIREMENTS FOR NONATTAINMENT AREAS".

(2) Section 171 of the Clean Air Act is amended by redesignating the section as 170, inserting it immediately after the heading "SUBPART 1—NONATTAINMENT AREAS IN GENERAL", and in this newly designated section—

(A) revising the introductory language to read as follows:

"For the purpose of this part and section 110(d)(9) and except as otherwise provided in this part—";

(B) revising paragraph (1) to read as follows:

"(1) The term 'reasonable further progress' means such annual incremental reductions in emissions of the relevant air pollutant as are required by this part or may reasonably be required by the Administrator for the purpose of ensuring attainment of the applicable national ambient air quality standard by the applicable date."; and

(C) revising paragraph (2) to read as follows:

"(2) The term 'nonattainment area' means, for any air pollutant, an area which is designated 'nonattainment' with respect to that pollutant within the meaning of section 110(b).".

(3) The Clean Air Act is amended by adding a new section 171 to read as follows:

"APPLICABILITY

"SEC. 171. Each provision of this subpart applies as set forth herein, except to the extent it is inconsistent with a provision in another subpart, in which case the provision in such other subpart shall apply.".

(b) NONATTAINMENT PLAN PROVISIONS IN GENERAL.—Section 172 of the Clean Air Act is amended to read as follows:

"NONATTAINMENT PLAN PROVISIONS IN GENERAL

"SEC. 172. (a) CLASSIFICATIONS AND ATTAINMENT DATES.—

"(1) INITIAL CLASSIFICATION.—

"(A) AUTHORITY.—On or after the date the Administrator promulgates the designation of an area as nonattainment pursuant to section 110(b) with respect to any national ambient air quality standard (or any revised standard, including a revision of any standard in effect on the date of enactment of the Clean Air Act Amendments of 1989), the Administrator may classify the area for the purpose of applying an attainment date pursuant to paragraph (2), and for other purposes. In determining the appropriate classification, if any, for a nonattainment area, the Administrator may consider such factors as the severity of nonattainment in such area and the availability and feasibility of the pollution control measures that he believes may be necessary to provide for attainment of such standard in such area.

"(B) The Administrator shall publish a notice in the Federal Register announcing such classification. Such classification shall not be subject to the provisions of 5 U.S.C. 553 through 557 (concerning notice and comment) and shall not be subject to judicial review until the Administrator takes final action under subsection (e) or (f) (concerning action on plan submissions) or section 179 (concerning sanctions) with respect to any plan submissions required by virtue of such designation.

"(2) ATTAINMENT DATES FOR NONATTAINMENT AREAS.—

"(A) PRIMARY STANDARDS.—The attainment date for an area designated nonattainment with respect to a primary national ambient air quality standard shall be the date by which attainment can be achieved as expeditiously as practicable, but no later than five years from the date such area was designated nonattainment under section 110(b), except that the Administrator may extend the attainment date to the extent he determines appropriate, for a period no greater than twenty years from the date of designation as nonattainment, considering the severity of nonattainment and the availability and feasibility of pollution control measures.

"(B) SECONDARY STANDARDS.—The attainment date for an area designated nonattainment with respect to a secondary national ambient air quality standard shall be within a reasonable time after the date such area was designated nonattainment under section 110(b).

"(C) Upon application by any State, the Administrator may extend for one additional year (the 'Extension Year') the attainment date determined by the Administrator under subparagraph (A) or (B) if—

"(i) the State has complied with all requirements and commitments pertaining to the area in the applicable implementation plan, and

"(ii) in accordance with guidance issued by the Administrator, no more than a minimal number of exceedances of the relevant national ambient air quality standard has occurred in the area in the year preceding the Extension Year.

No more than two one-year extensions may be issued under this subparagraph for a single nonattainment area.

"(b) SCHEDULE FOR PLAN SUBMISSIONS.—At the time the Administrator promulgates the designation of an area as nonattainment with respect to a national ambient air quality standard under section 110(b), he shall establish a schedule according to which the State containing such area shall submit a plan or plan revision (including the plan items) meeting the applicable requirements of subsection (C) and section 110(d). Such schedule must, at a minimum, include a date or dates, extending no later than three years from the date of the nonattainment designation, for the submission of a plan or plan revision (including the plan items) meeting the applicable requirements of subsection (c) and section 110(d).

"(c) NONATTAINMENT PLAN PROVISIONS.—The plan provisions (including plan items) required to be submitted pursuant to subsection (b) shall—

"(1) provide for the implementation, by such dates as the Administrator may prescribe, of reasonably available control measures (including measures to apply reasonably available control technology) for such emission sources or categories of emission sources as the Administrator may identify;

"(2) require reasonable further progress;

"(3) include a comprehensive, accurate, current inventory of actual emissions from all sources of the relevant pollutant or pollutants in such area, including such periodic revisions as the Administrator may determine necessary to assure that the requirements of this part are met;

"(4) expressly identify and quantify the emissions, if any, of any such pollutant or pollutants which will be allowed, in accordance with section 173(a)(1)(B), from the construction and operation of major new or modified stationary sources in each such area. The plan shall demonstrate to the satisfaction of the Administrator that the emissions quantified for this purpose will be consistent with the achievement of reasonable further progress and will not interfere with attainment of the applicable national ambient air quality standard by the applicable attainment date;

"(5) require permits for the construction and operation of new or modified major stationary sources anywhere in the nonattainment area, in accordance with section 173; and

"(6) include enforceable emission limitations, schedules and timetables for compliance, and such other measures, means or techniques (including economic incentives such as fees, marketable permits, and auctions of emissions rights) as the Administrator may determine to be necessary or appropriate to provide for attainment of such standard in such area by the attainment date specified in subsection (a).

"(d) PLAN REVISIONS REQUIRED IN RESPONSE TO FINDING OF PLAN INADEQUACY.—Any plan revision for a nonattainment area which is required to be submitted in response to a finding by the Administrator pursuant to section 110(e)(4) must correct the plan deficiency (or deficiencies) specified by the Administrator and meet all other applicable plan requirements of section 110 and this part. The Administrator may reasonably adjust the dates otherwise applicable under such requirements to such revision (except for attainment dates), to the extent necessary to achieve a consistent application of such requirements.".

(c) NEW SOURCE PERMIT REQUIREMENTS.—Section 173 of the Clean Air Act is amended by—

(1) inserting "(a)" at the beginning thereof, thereby redesignating section 173 as subsection 173(a), and, accordingly, redesignating section 173(1) as 173(a)(1), redesignating section 173(1)(A) as 173(a)(1)(A), redesignating section 173(1)(B) as 173(a)(1)(B), and redesignating section 173(4) as 173(a)(4);

(2) inserting at the beginning of newly designated paragraph 173(a)(1) the following: "in accordance with regulations issued by the Administrator for the determination of baseline emissions in a manner consistent with the assumptions underlying the applicable implementation plan approved under section 110(e) and this part,";

(3) in newly designated subparagraph 173(a)(1)(A)—

(A) inserting "sufficient offsetting emissions reductions have been obtained, such that" immediately after the comma following "operation" in the first phrase,

(B) striking "allowed under the applicable implementation plan" and inserting "(as determined in accordance with the regulations described in this paragraph)", and

(C) striking "171" and inserting "170";

(4) in newly designated subparagraph 173(a)(1)(B)—

(A) inserting "in the case of a new or modified major stationary source which is located in a zone (within the nonattainment area) identified by the Administrator, in consultation with the Secretary of Housing and Urban Development, as a zone to which economic development should be targeted," at the beginning thereof, and

(B) striking "172(b)" and inserting "172(c)";

(5) in newly designated paragraph 173(a)(4)—

(A) inserting "The Administrator has not determined that" at the start thereof,

(B) striking "being carried out" and inserting "not being adequately implemented", and

(C) replacing the period at the end thereof with a semicolon;

(6) adding a new paragraph (5) to newly designated subsection 173(a), to read as follows:

"(5) an analysis of alternative sites, sizes, production processes, and environmental control techniques for such proposed source demonstrates that benefits of the proposed source significantly outweigh the environmental and social costs imposed as a result of its location, construction, or modification.";

(7) striking "(1)(A) shall be legally binding" in the concluding sentence of newly designated section 173(a) immediately following the phrase "a permit under paragraph", and inserting "(1) shall be federally enforceable"; and

(8) adding a new subsection (b) to read as follows:

"(b) PROHIBITION ON USE OF OLD GROWTH ALLOWANCES.—Any growth allowance included in an applicable implementation plan to meet the requirements of section 172(b)(5) (as in effect immediately before the date of enactment of the Clean Air Act Amendments of 1989) shall not be valid for use in any area that received or receives a notice under section 110(a)(2)(H)(ii) (as in effect immediately before the date of enactment of the Clean Air Act Amendments of 1989) or under section 110(e)(4) that its applicable implementation plan containing such allowance is substantially inadequate.".

(d) PLANNING PROCEDURES.—Section 174 of the Clean Air Act is amended to read as follows:

"PLANNING PROCEDURES

"SEC. 174. (a) For any ozone or carbon monoxide nonattainment area, the State containing such area and elected officials of affected local governments shall, prior to the date required for submittal of the inventory described under sections 182(a)(1) and 187(a)(1), jointly review and update as necessary the planning procedures adopted pursuant to this subsection as in effect immediately before the date of enactment of the Clean Air Act Amendments of 1989, or develop new planning procedures pursuant to this subsection, as appropriate. In preparing such procedures the State and local elected officials shall determine which elements of a revised implementation plan will be developed, adopted, and implemented (through means including enforcement) by the State and which by local governments or regional agencies, or any combination of local governments, regional agencies, or the State. The implementation plan required by this part shall be prepared by an organization certified by the State for this purpose. Where such an organization has not been designated by agreement within six months after enactment of the Clean Air Act Amendments of 1989, the Governor, after consultation with elected officials of local governments and in accordance with the determination under the second sentence of this subsection, shall designate an organization to prepare such plan. Such organization shall include elected officials of local governments in the affected area, and representatives of the State air quality planning agency, the State transportation planning agency, the metropolitan planning organization designated to conduct the continuing, cooperative and comprehensive transportation planning process for the area under section 134 of title 23, United States Code, the organization responsible for the air quality maintenance planning process under regulations implementing this Act, and any other organization with responsibilities for developing, submitting, or implementing the plan required by this part.

"(b) The preparation of implementation plan provisions and subsequent plan revisions under the continuing transportation-air quality planning process described in section 108(e) shall be coordinated with the continuing, cooperative and comprehensive transportation planning process required under section 134 of title 23, United States Code, and such planning processes shall take into account the requirements of this part.

"(c) In the case of a nonattainment area that is included within more than one State, the affected States may jointly, through interstate compact or otherwise, undertake and implement all or part of the planning procedures described in this section.".

(e) MAINTENANCE PLANS.—Section 175 of the Clean Air Act is amended to read as follows:

"MAINTENANCE PLANS

"SEC. 175. The maintenance plan required under section 110(b)(3)(C) as a precondition to redesignation of an area shall provide for the maintenance of the national ambient air quality standard for the relevant air pollutant in such area for at least ten years after the date the redesignation petition is submitted to the Administrator.".

(f) INTERSTATE TRANSPORT PROVISIONS.—

(1) INTERSTATE TRANSPORT COMMISSIONS.—Section 176 of the Clean Air Act is amended by striking subsections (a) and (b) and inserting the following:

"INTERSTATE TRANSPORT COMMISSIONS

"SEC. 176. (a) AUTHORITY TO ESTABLISH INTERSTATE TRANSPORT REGIONS.—Whenever, on his own motion or by petition from the Governor of any State, the Administrator has reason to believe that the interstate transport of air pollutants from one or more States contributes significantly to a violation of a national ambient air quality standard in one or more other States, he may establish a transport region for such pollutant that includes such States. The Administrator, on his own motion or upon petition from the Governor of any State, or upon the recommendation of a transport commission established under subsection (b), may—

"(1) add any State or portion of a State to any region established under this subsection whenever he has reason to believe that the interstate transport of air pollutants from such State significantly contributes to a violation of the standard in the transport region, or

"(2) remove any State or portion of a State from the region whenever he has reason to believe that the control of emissions in that State or portion of the

State pursuant to this section will not significantly contribute to the attainment of the standard in any area in the region.

The Administrator shall approve or disapprove any such petition or recommendation within eighteen months of its receipt.

"(b) TRANSPORT COMMISSIONS.—

"(1) Whenever the Administrator establishes a transport region under subsection (a), he shall establish a transport commission comprised of the following members:

"(A) an air pollution control official representing each State in the region, appointed by the Governor;

"(B) the Administrator or his designee; and

"(C) the Regional Administrator (or his designee) for each Regional Office for each Environmental Protection Agency Region affected by the transport region concerned. Decisions of, and recommendations and requests to the Administrator by, each transport commission may be made only by a majority vote of all members other than the Administrator and Regional Administrators (or designees thereof).

"(2) The transport commission shall assess the degree of interstate transport of the pollutant or precursors to the pollutant throughout the transport region, assess strategies for mitigating the interstate pollution, and recommend to the Administrator such measures as the Commission determines, by majority vote, to be necessary to ensure that the plans for the relevant States meet the requirements of section 110(d)(4). Such commission shall not be subject to the provisions of the Federal Advisory Committee Act (5 U.S.C. Appendix).

"(c) COMMISSION REQUESTS.—A transport commission established under subsection (b) may request the Administrator to issue a finding under section 110(e)(4) that the implementation plan for one or more of the States in the transport region is substantially inadequate to meet the requirements of section 110(d)(4). The Administrator shall approve, disapprove, or partially approve and partially disapprove such a request within eighteen months of its receipt and, to the extent he approves such request, issue the finding under section 110(e)(4) to that extent at the time of such approval. In acting on such request, the Administrator shall address each specific recommendation made by the commission. Approval or disapproval of such a request shall constitute final agency action within the meaning of section 307(b).".

(2) AMENDMENTS CONFORMING TO TRANSPORT PROVISIONS.—Section 106 of the Clean Air Act is amended by—

(A) inserting "or of implementing section 176 (relating to control of interstate air pollution)" immediately following "section 107";

(B) inserting "any commission established under section 176 (relating to control of interstate ozone air pollution) or" immediately following "program costs of";

(C) inserting "or such commission" in the last sentence immediately following "such agency"; and

(D) inserting "or commission" at the end thereof, immediately before the period.

(g) SANCTIONS AND FEDERAL PLANS.—Subpart 1 of Part D of the Clean Air Act is amended by adding new sections 179 and 180 to the end thereof to read as follows:

"SANCTIONS AND CONSEQUENCES OF FAILURE TO ATTAIN

"SEC. 179. (a) INITIAL REASONABLE EFFORTS DETERMINATION.—For any implementation plan or plan revision required under this part (or required in response to a finding of substantial inadequacy as described in section 110(e)(4)), at such time as the Administrator—

"(1) finds that a State has failed, for an area designated nonattainment under section 110(b), to submit one or more of the elements required by the provisions of this Act applicable to such an area, or has failed to make a submission for such an area that satisfies the minimum criteria established in relation to any such element under section 110(e)(1)(A),

"(2) disapproves a submission in whole or in part, under section 110(e), for an area designated nonattainment under 110(b), based on the submission's failure to meet one or more of the elements required by the provisions of this Act applicable to such an area,

"(3)(A) determines that a State has failed to make any submission as may be required under this Act, other than one described under paragraph (1) or (2), including but not limited to, an adequate maintenance plan, or has failed to make any submission, as may be required under this Act, other than one described under paragraph (1) or (2), that satisfies the minimum criteria established in relation to such submission under section 110(e)(1)(A), or

"(B) disapproves, in whole or in part, a submission described under subparagraph (A), or

"(4) finds that any requirement of an approved plan (or approved part of a plan) is not being implemented, he shall (and at any other time the Administrator may) publish in the Federal Register a proposed determination of whether the State is making reasonable efforts to cure the relevant failure. If the Administrator proposes to determine that the State is not making reasonable efforts to cure the failure, he shall simultaneously propose to apply, with respect to the relevant area within such State, at least one of the sanctions specified in subsection (b) (for the purposes of encouraging the State to undertake reasonable efforts and preventing further deterioration of the State's air quality) and describe why application of such sanction or sanctions is appropriate under the circumstances. The Administrator shall take final action on these proposals no later than six months after the date such proposals are published. If the Administrator makes a final determination that the State is not making reasonable efforts, he shall simultaneously apply at least one of the sanctions listed in subsection (b), to take effect no later than sixty days following final action. No sanction under subsection (b), imposed because of a failure by a State, may be applied, based on such failure, outside the borders of that State.

"(b) AVAILABLE SANCTIONS.—

"(1) A moratorium on the construction or modification of any major stationary source (as defined in section 302(j)) of the relevant pollutant or pollutants in the nonattainment area (or portion thereof, where the Administrator in his discretion determines that the State failure relates exclusively to such portion). Where the State failure relates to ozone, the moratorium is available with respect to both the nonattainment area and the area within twenty-five miles of the boundary of such area.

"(2) Upon a finding by the Administrator under section 110 (g)(1) or (g)(2), or under section 179 (a)(1) or (a)(2), where the Administrator believes that attainment and maintenance of a national ambient air quality standard cannot reasonably be achieved without the inclusion of transportation control measures in the applicable implementation plan, the Secretary of Transportation, upon selection by the Administrator of the sanction described in this paragraph, shall not approve any project or award any grant under title 23, United States Code, other than for:

"(A) safety,

"(B) mass transit, or

"(C) transportation projects related to air quality improvement or maintenance.

The Secretary shall consult with the Administrator before approving any project under paragraph (C). This sanction may be imposed as to a particular nonattainment area (or portion thereof) located within a particular State, no more than once in each of the consecutive five-year periods beginning with the date of enactment of this section.

"(3) An order by the Administrator prohibiting any public water system regulated under title XIV of the Public Health Service Act from providing drinking water service in the nonattainment area (or portion thereof, where the State failure relates exclusively to such portion) to any structure to which such service was not provided before the Administrator's determination under this section that the State is not making reasonable efforts, except that the Administrator may not prohibit any public water system from providing water service to any customer requiring such service to correct an existing public health hazard.

"(4) A withholding of all or part of the grants for support of air pollution planning and control programs that the Administrator may award under section 105.

"(c) SUBSEQUENT REASONABLE EFFORTS DETERMINATIONS.—Except as provided under subsection (d), not later than twelve months after the Administrator takes final action on a reasonable efforts determination under subsection (a) or under this subsection, he shall publish in the Federal

Register, in accordance with the procedures under subsection (a), a determination of—

"(1) in the case of a State that had previously been determined to be making reasonable efforts, whether the State still is making reasonable efforts. If the Administrator determines that the State no longer is making reasonable efforts, he shall follow the procedure under subsection (a) relating to a finding that a State is not making reasonable efforts (including applying at least one sanction);

"(2) in the case of a State that had previously been determined not to be making reasonable efforts, whether the State now is making reasonable efforts; and

"(A) if the Administrator determines that the State is making reasonable efforts, he shall lift any sanctions previously imposed, or

"(B) if the Administrator determines that the State still is not making reasonable efforts, he shall determine, in his discretion, whether it is necessary to apply one or more additional sanctions under subsection (b) to further encourage the State to cure its failure. In the event the Administrator decides to apply another sanction, he shall follow the procedure described in subsection (a). If he decides not to apply another sanction, he shall explain the basis for his decision in the Federal Register.

"(d) FAILURE TO SUBMIT REVIEWABLE PLAN WITHIN EIGHTEEN MONTHS OF THE REQUIRED DATE.—Notwithstanding any provision of subsection (c), if the Administrator has determined that a State has failed to submit, within eighteen months following the date that it was due, an implementation plan or plan revision required under this part that meets the minimum criteria, if any, established under section 110(e)(1)(A), the Administrator shall, no later than six months after such eighteen-month period, take any final action necessary to assure that at least one of the sanctions under subsection (b) is in effect within sixty days of the date of such final action. Such sanction shall remain in effect until the Administrator determines that the State has made such submission.

"(e) NOTICE OF FAILURE TO ATTAIN.—

"(1) As expeditiously as practicable after the applicable attainment date for any nonattainment area, the Administrator shall determine, based on the area's air quality as of the attainment date, whether the area attained the standard by that date.

"(2) Upon making the determination under paragraph (1), the Administrator shall publish a notice in the Federal Register identifying each area that he has determined to have failed to attain. The Administrator may revise or supplement such determination at any time based on more complete information or analysis concerning the area's air quality as of the attainment date.

"(f) CONSEQUENCES FOR FAILURE TO ATTAIN.—

"(1) At the time the Administrator publishes the notice under subsection (e)(2), he shall establish a schedule according to which the State containing the nonattainment area shall submit a revision to the applicable implementation plan meeting the requirements of paragraph (2) of this subsection. Such schedule must, at a minimum, include a date or dates, extending no later than three years from the date of the notice under subsection (e)(2), for the submission of the plan revision.

"(2) The revision required under paragraph (1) shall meet the requirements of section 110(d) and section 172(c). In addition, the revision shall include such additional measures as the Administrator may reasonably prescribe (including all measures that can feasibly be implemented in the area in light of technological achievability, costs, and any non-air quality and other air quality-related health and environmental impacts).

"(3) The attainment date applicable to the revision required under paragraph (1) shall be the same as provided in section 172(a)(2), except that the phrase 'from the date of the notice required under section 179(e)(2)' shall be substituted for the phrase 'such area was designated nonattainment under section 110(b)' and for the phrase 'designation of nonattainment'.

"(g) CONSTRUCTION BANS.—No major stationary source of any pollutant shall be constructed or modified in a nonattainment area for such pollutant after December 31, 1992, or forty-two months from the date such area was designated nonattainment for such pollutant, whichever is later, unless, as of the later of such dates, the Administrator has approved a plan submission for the area meeting the requirements of section 172(c)(5) with respect to such pollutant. Before the later of the dates set forth above, no State shall issue a permit for construction or modification of a major stationary source unless such permit meets the requirements of section 173.

"FEDERAL IMPLEMENTATION PLANS

"SEC. 180. (a) GENERAL AUTHORITY.—The Administrator may promulgate a Federal implementation plan at any time after he—

"(1) finds that a State has failed to make a required submission or finds that the plan or plan revision submitted by the State does not satisfy the minimum criteria established under section 110(e)(1)(A), or

"(2) disapproves a State implementation plan submission in whole or in part.

"(b) REQUIREMENT FOLLOWING REASONABLE EFFORTS DETERMINATION.—At the time the Administrator proposes under section 179(c) to determine that a State is not making reasonable efforts, he shall also decide, in his discretion, whether to propose to promulgate a Federal implementation plan. In determining whether to promulgate a Federal implementation plan, the Administrator shall consider the practicality of issuing and implementing (including enforcing) such a plan, the severity of the nonattainment problem, the amount of time remaining before the attainment date, the amount of emissions reductions that would be achieved by the plan, costs, and the nature of the State's efforts to cure the relevant failure. He shall describe in the Federal Register each State failure and, for each failure, the reasons that he is proposing to promulgate or not to promulgate a Federal implementation plan. The Administrator shall take final action on such proposal within six months. The Administrator may promulgate a plan only if such a plan results in significant additional progress toward meeting the requirements of this Act.

"(c) FEDERAL IMPLEMENTATION PLAN OBLIGATIONS.—The Administrator shall not be required to promulgate any Federal implementation plan initiated or required under section 110(c) as in effect immediately before the date of enactment of the Clean Air Act Amendments of 1989, regardless of whether the promulgation of such a plan was ordered (or was required under a settlement agreement entered) by a court of law prior to the date of enactment of the Clean Air Act Amendments of 1989.".

SEC. 103. ADDITIONAL PROVISIONS FOR OZONE NONATTAINMENT AREAS.

Part D of title I of the Clean Air Act is amended by adding the following new subpart after subpart 1:

"SUBPART 2—ADDITIONAL PROVISIONS FOR OZONE NONATTAINMENT AREAS

"Sec. 181. Classifications and attainment dates.
"Sec. 182. Plan submissions and requirements.
"Sec. 183. Federal ozone measures.
"Sec. 184. Northeast transport region and commission.
"Sec. 185. Sanction for severe ozone nonattainment areas for failure to attain.

"CLASSIFICATIONS AND ATTAINMENT DATES

"SEC. 181. (a) CLASSIFICATION AND ATTAINMENT DATES FOR 1988 NONATTAINMENT AREAS.—

"(1) Each area designated nonattainment for ozone pursuant to section 110(b)(4) is hereby classified under table 1, by operation of law, as a marginal area, a moderate area, a serious area, or a severe area, based on the design value for the area. The design value shall be calculated according to the interpretation methodology issued by the United States Environmental Protection Agency most recently before the date of enactment of this section. For each area classified under this subsection, the primary national ambient air quality standard attainment date for ozone shall be as provided in table 1.

"TABLE 1

Area classification	Design value	Primary standard attainment date
Marginal	.13 ppm	December 31, 1995.
Moderate	.14–.15 ppm	December 31, 1995.
Serious	.16–.18 ppm	December 31, 2000.
Severe	.19 ppm and above	As expeditiously as practicable, but no later than December 31, 2010.

"(2) At the time of publication of the notice required under section 110(b)(4) (promulgating ozone area designations), the Administrator shall publish a notice announcing the classification (as may be adjusted under paragraph (4)) of each ozone nonattainment area. The provisions of section 172(a)(1)(B) (relating to lack of notice-and-comment and judicial review) shall apply to such classification.

"(3) An area designated nonattainment for ozone under section 110(b)(1)(C)(i), but the design value of which is less than .13 ppm, shall be classified as a marginal area.

"(4) ADJUSTMENT OF CLASSIFICATION FOR BORDERLINE AREAS.—If an area classified under paragraph (1), table 1, would have been classified in another category if the design value in the area were 5 percent greater or 5 percent less than the level on which such classification was based, the Administrator may, in his descretion, by the procedure required under paragraph (2), adjust the classification to place the area in such other category. In making such adjustment, the Administrator may consider the number of exceedances of the national primary ambient air quality standard for ozone in the area, the level of pollution transport between the area and other affected areas, and the mix of sources and air pollutants in the area.

"(5) EXTENSIONS OF ATTAINMENT DATES.—Upon application by any State, the Administrator may extend for one additional year (the 'Extension Year') the date specified in table 1 of subsection (a) if—

"(A) the State has complied with all requirements and commitments pertaining to the area in the applicable implementation plan, and

"(B) no more than one exceedance of the national ambient air quality standard level for ozone has occurred in the area in the year preceding the Extension Year.

No more than two one-year extensions may be issued under this paragraph for a single nonattainment area.

"(b) NEW DESIGNATIONS AND RECLASSIFICATIONS.—

"(1) NEW DESIGNATIONS TO NONATTAINMENT.—Any area that is designated attainment or unclassifiable for ozone under section 110(b)(4), and that is subsequently redesignated to nonattainment for ozone under section 110(b)(3), shall, at the time of the redesignation, be classified by operation of law in accordance with table 1 under subsections (a)(1) and (a)(4). Upon its classification, the area shall be subject to the same requirements under section 110, subpart 1 of this part, and this subpart that would have applied had the area been so classified at the time of the notice under subsection (a)(2), except that any absolute, fixed date applicable in connection with any such requirement is extended by operation of law by a period equal to the length of time between the date of enactment of this section and the date the area is classified.

"(2) RECLASSIFICATION UPON FAILURE TO ATTAIN.—

"(A) GENERAL RULE.—Within six months following the applicable attainment date for an ozone nonattainment area, the Administrator shall determine, based on the area's design value as of the attainment date, whether the area attained the standard by that date. Except for any severe area, any area that the Administrator finds has not attained the standard by that date shall be reclassified by operation of law in accordance with table 1 of subsection (a)(1) to the higher of—

"(i) the next higher classification for the area, or

"(ii) the classification applicable to the area's design value as determined at the time of the notice required under subparagraph (B).

"(B) The Administrator shall publish a notice in the Federal Register, no later than six months following the attainment date, identifying each area that he has determined under subparagraph (A) as having failed to attain and identifying the reclassification, if any, described under subparagraph (A).

"(c) REFERENCES TO TERMS.—

"(1) Any reference in this subpart to a 'marginal area', a 'moderate area', a 'serious area', or a 'severe area' shall be considered a reference to a marginal ozone nonattainment area, a moderate ozone nonattainment area, a serious ozone nonattainment area, or a severe ozone nonattainment area as classified under this section.

"(2) Any reference in this subpart to 'next higher classification' or comparable terms shall be considered a reference to the classification related to the next higher set of design values in table 1.

"PLAN SUBMISSIONS AND REQUIREMENTS

"SEC. 182. (a) MARGINAL AREAS.—Each State in which all or part of a marginal area is located shall, with respect to the marginal area (or portion thereof, to the extent specified in this subsection), submit to the Administrator the State implementation plan revisions (including the plan items) described under paragraphs (1), (2), and (3), except to the extent the State has made such submissions as of the date of enactment of this section.

"(1) INVENTORY.—Within two years of the date of enactment of this section, the State shall submit a comprehensive, accurate, current inventory of actual emissions from all sources, as described in section 172(c)(3), in accordance with guidance provided by the Administrator.

"(2) CORRECTIONS TO THE STATE IMPLEMENTATION PLAN.—Within the periods prescribed in this paragraph, the State shall submit a revision to the State implementation plan that meets the following requirements—

"(A) REASONABLY AVAILABLE CONTROL TECHNOLOGY CORRECTIONS.—For any marginal area (or, within the Administrator's discretion, portion thereof) the State shall submit, within six months of the date of classification under section 181(a)(2), a revision that includes such provisions to correct requirements in (or add requirements to) the plan concerning reasonably available control technology as were required under section 172(b) (as in effect immediately before the date of enactment of the Clean Air Act Amendments of 1989), as interpreted in guidance issued by the United States Environmental Protection Agency prior to the date of enactment of this section.

"(B) SAVINGS CLAUSE FOR VEHICLE INSPECTION AND MAINTENANCE.—For any marginal area (or, within the Administrator's discretion, portion thereof), the plan for which already includes, or was required by section 172(b)(11)(B) (as in effect immediately before the date of enactment of the Clean Air Act Amendments of 1989) to have included, a specific schedule for implementation of a vehicle emission control inspection and maintenance program, the State shall submit, immediately after the date of enactment of this section, a revision that includes any provisions necessary to provide for a vehicle inspection and maintenance program of no less stringency than that of either the program defined in House Report No. 95-294, 95th Congress, 1st Session, 281-291 (1977) as interpreted in guidance of the Administrator issued pursuant to section 172(b)(11)(B) (as in effect immediately before the date of enactment of the Clean Air Act Amendments of 1989) or the program already included in the plan, whichever is more stringent. No later than two years after the Administrator promulgates regulations under section 202(g)(3), the State shall submit a revision to such program to meet any requirements that the Administrator prescribes under that section.

"(C) NEW SOURCE REVIEW.—Within two years of the date of enactment of this section, the State shall submit a revision that includes each of the following—

"(i) provisions to require permits, in accordance with sections 172(c)(5) and 173, for the construction and operation of each new or modified major stationary source (with respect to ozone) to be located in the area; and "(ii) provisions to correct requirements in (or add requirements to) the plan concerning permit programs as were required under section 172(b)(6) (as in effect immediately before the date of enactment of this section), as interpreted in regulations of the Administrator promulgated as of the date of enactment of this section.

"(3) PERIODIC INVENTORY.—

"(A) GENERAL REQUIREMENT.—By September 30, 1996, and no later than the end of each three-year period thereafter, until the area is redesignated to attainment, the State shall submit a revised inventory meeting the requirements of subsection (a)(1).

"(B) EMISSIONS STATEMENTS.—

"(i) Within two years of the date of enactment of this section, the State shall submit a revision to the State implementation plan to require that the owner or operator of each stationary source of oxides of nitrogen or volatile organic compounds provide the State with a statement, in such form as the Administrator may prescribe (or the State may prescribe, if the Administrator does not) for classes or categories of sources, showing the actual emissions of oxides of nitrogen and volatile organic compounds from that source during the previous calendar year. The first such statement shall be submitted within two years of the date of enactment of this section. Subsequent statements shall be submitted at least every year thereafter.

"(ii) The State may waive the application of subparagraph (A) to any class or category of stationary sources which emit less than twenty-five tons per year of volatile organic compounds or oxides of nitrogen if the State, in it submissions under subparagraphs (1) or (3)(A), provides an inventory of emissions from such class or category of sources, based on the use of the emission factors established by the Administrator or other methods acceptable to the Administrator.

The Administrator may, in his discretion, require States to submit a schedule for submitting any of the revisions or other items required under this subsection. The requirements of this subsection shall apply in lieu of any requirement that the State submit a demonstration that the applicable implementation plan provides for attainment of the ozone standard by the applicable attainment date in any marginal area.

"(b) Moderate Areas.—Each State in which all or part of a moderate area is located shall, with respect to the moderate area, make the submissions described under subsection (a) (relating to marginal areas), and submit the revisions to the applicable implementation plan described under this subsection.

"(1) Plan provisions for reasonable further progress.—

"(A) General rule.—By no later than three years from the date of enactment of this section, the State shall submit a revision to the applicable implementation plan to provide, and a demonstration that the plan as revised will provide, for emission reductions, by December 31, 1995, of at least 15 per centum from baseline emissions, accounting for any growth in emissions after the year of enactment of this section.

"(B) Baseline emissions.—For purposes of subparagraph (A), the term 'baseline emissions' is defined as the total amount of actual VOC emissions from all sources in the moderate area during the calendar year of enactment of this section, excluding emissions that would be eliminated under the regulations described in subparagraph (D) (i) and (ii).

"(C) GENERAL RULE FOR CREDITABILITY OF REDUCTIONS.—Except as provided under subparagraph (D), emissions reductions are creditable towards the 15 per centum required under subparagraph (A) to the extent they have actually occurred, as of December 31, 1995, from the implementation of measures required under either the applicable implementation plan or rules promulgated by the Administrator.

"(D) LIMITS ON CREDITABILITY OF REDUCTIONS.—Emission reductions from the following measures are not creditable towards the 15-percent reductions required under subparagraph (A)—

"(i) Any measures relating to motor vehicle tailpipe or evaporative emissions promulgated by the Administrator by the date of enactment of this section;

"(ii) Regulations concerning Reid Vapor Pressure promulgated by the Administrator by the date of enactment of this section or required to be promulgated under section 211(h);

"(iii) Measures required under subsection (a)(2)(A) (concerning corrections to implementation plans prescribed under guidance by the Administrator); and

"(iv) Measures required under subsection (a)(2)(B) to be submitted immediately after the date of enactment of this section (concerning motor vehicle inspection and maintenance).

"(E) EXEMPTION FROM CERTAIN OTHER REQUIREMENTS.—The requirement to submit a revision under subparagraph (A) shall apply in lieu of—

"(i) the requirement under sections 172(c)(2) and 170(l) (concerning reasonable further progress), and

"(ii) any requirement that the State submit a demonstration that the applicable implementation plan provides for attainment of the ozone standard by the applicable attainment date in any moderate area.

"(2) REASONABLY AVAILABLE CONTROL TECHNOLOGY.—The State shall submit a revision or revisions to the applicable implementation plan to include provisions to require the implementation of reasonably available control technology, under section 172(b)(1), with respect to—

"(A) each category of VOC sources in the area covered by a Control Techniques Guideline (CTG) document issued by the Administrator between the date of enactment of this section and the date of attainment;

"(B) all VOC sources in the area covered by any CTG issued before the date of enactment of this section;

"(C) all other stationary sources with the potential to emit at least one hundred tons per year of VOCs and that are located in the area.

Each revision described in subparagraph (A) shall be submitted within the period set forth by the Administrator in issuing the relevant CTG document. The revisions described in subparagraphs (B) and (C) shall be submitted by two years after the date of enactment of this section, and shall provide for the implementation of the required measures as expeditiously as practicable but no later than May 31, 1995.

"(3) GASOLINE VAPOR RECOVERY.—

"(A) GENERAL RULE.—Notwithstanding any other provision of this Act, not later than two years after the date of enactment of this section, the State shall submit a revision to the applicable implementation plan to require all owners or operators of gasoline dispensing systems (except as the Administrator may, in his discretion, otherwise provide with respect to owners or operators of gasoline dispensing systems at small gasoline dispensing facilities) to install and operate, by the date prescribed under subparagraph (B), a system for gasoline vapor recovery of emissions from the fueling of motor vehicles. The Administrator shall issue guidance as appropriate as to the effectiveness of such system.

"(B) EFFECTIVE DATE.—The date required under subparagraph (A) shall be—

"(i) six months after the adoption date, in the case of gasoline dispensing facilities for which construction commenced after the date of enactment of this section;

"(ii) one year after the adoption date, in the case of gasoline dispensing facilities which dispense at least one hundred thousand gallons of gasoline per month, based on average monthly sales for the two-year period prior to the adoption date; or "(iii) two years after the adoption date, in the case of all other gasoline dispensing facilities.

Any gasoline dispensing facility described under both clause (i) and clause (ii) shall meet the requirements of clause (i).

"(C) Nothing in this paragraph shall be construed to prohibit any State from adopting or enforcing any regulations related to any system for gasoline vapor recovery of emissions from the fueling of motor vehicles that are more stringent than the requirements of this paragraph.

"(D) REFERENCE TO TERMS.—For purposes of this paragraph, any reference to the term 'adoption date' shall be considered a reference to the date of adoption by the State of requirements for the installation and operation of a system for gasoline vapor recovery of emissions from the fueling of motor vehicles.

"(c) SERIOUS AREAS.—Except as otherwise specified in paragraph (3), each State in which all or part of a serious area is located shall, with respect to the serious area (or portion thereof, to the extent specified in this subsection), make the submissions described under subsection (b) (relating to moderate areas), and submit the revisions to the applicable implementation plan (including the plan items) described under this subsection.

"(1) ATTAINMENT AND REASONABLE FURTHER PROGRESS DEMONSTRATIONS.—By December 31, 1995, the State shall submit a revision to the applicable implementation plan that includes—

"(A) ATTAINMENT DEMONSTRATION.—A demonstration that the plan, as revised, will provide for attainment of the ozone national ambient air quality standard by the applicable attainment date. This attainment demonstration must be based on photochemical grid modeling or any other analytical method determined by the Administrator, in his discretion, to be at least as effective;

"(B) REASONABLE FURTHER PROGRESS DEMONSTRATION.—Except as provided under subparagraph (C), a demonstration that the plan, as revised, will result in VOC emissions reductions from the baseline emissions described in subsection (b)(1)(B) equal to the following amount, averaged over each consecutive three-year period beginning January 1, 1996, until the attainment date—

"(i) at least 3 per centum of such baseline emissions each year;

"(ii) an amount less than 3 per centum of such baseline emissions each year, if the State demonstrates to the satisfaction of the Administrator that the plan reflecting such lesser amount includes all measures that can feasibly be implemented in the area, in light of technological achievability, costs, and any nonair quality and other air quality-related health and environmental impacts; or

"(iii) an amount less than 3 per centum of such baseline emissions each year, if the State demonstrates to the satisfaction of the Administrator that no greater than such amount is necessary to provide for attainment by the attainment date.

The emission reductions described in clauses (i), (ii), and (iii) shall be calculated in accordance with subsection (b)(1) (C) and (D) (concerning creditability of reductions). The reductions creditable for the year beginning January 1, 1996, may include reductions that occurred by December 31, 1995, computed in accordance with paragraph (b)(1), that exceed the 15-per centum amount of reductions required under subparagraph (b)(1)(A). The requirements of this subparagraph apply in lieu of the requirements under sections 172(c)(2) and 170(1) (concerning reasonable further progress).

"(C) NO_X CONTROL.—The revision may contain, in lieu of the demonstration required under subparagraph (B), a demonstration to the satisfaction of the Administrator that the applicable implementation plan, as revised, provides for reductions of emissions of VOC's and oxides of nitrogen (calculated according to the creditability provisions of subsection (b)(1) (C) and (D)), that would result in a reduction in ozone concentrations at least equivalent to that which would result from the amount of VOC emission reductions required under subparagraph (B)."

"(2) ENHANCED VEHICLE INSPECTION AND MAINTENANCE PROGRAM.—

"(A) REQUIREMENT FOR SUBMISSION.—Within two years from the date of enactment of this section, the State shall submit a revision to the applicable implementation plan to provide for an enhanced program to reduce hydrocarbon emissions from in-use motor vehicles registered in each urbanized area (in the nonattainment area), as defined by the Bureau of the Census, with a 1980 population of two hundred thousand or more.

"(B) GUIDANCE.—The State program required under subparagraph (A) shall take effect no later than two years from the date of enactment of this section and shall comply in all respects with guidance published (and from time to time revised) by the Administrator for enhanced vehicle inspection and maintenance programs. Such guidance shall include—

"(i) a performance standard achievable by a program combining emission testing with inspection to detect tampering with emission control devices and misfueling for all light-duty vehicles and all light-duty trucks subject to standards under section 202. Compliance with this performance standard shall be determined using a method to be established by the Administrator; and

"(ii) program administration features necessary to reasonably assure that adequate management resources, tools, and practices are in place to attain and maintain the performance standard.

"(C) STATE PROGRAM.—The State program required under subparagraph (A) shall include at a minimum each of the following elements—

"(i) computerized emission analyzers;

"(ii) no waivers for vehicles and parts covered by the emission control performance warranty as provided for in section 207(b) unless a warranty remedy has been denied in writing, or for tampering-related repairs;

"(iii) if waivers are permitted for emissions-related repairs not covered by warranty, a required expenditure, to qualify for the waiver, on pre-1981 model year vehicles of not less than $75, and on 1981 and subsequent model year vehicles of not less than $200 for the initial waiver period and $75 in an immediately subsequent period. The dollar amounts in this clause shall be adjusted, beginning in the fifth year beginning after the year of enactment of this section, and each fifth year beginning thereafter, in accordance with section 402(b)(3)(B)(v) (relating to inflation adjustment), except that the phrase 'each fifth year' shall be substituted for the phrase 'each year' therein. Each dollar amount, so adjusted, shall be rounded upward to the nearest whole dollar;

"(iv) enforcement through denial of vehicle registration (except for any program in operation prior to the effective date of this section whose enforcement mechanism is demonstrated to the Administrator to be more effective than the applicable vehicle registration program in assuring that noncomplying vehicles are not operated on public roads); and

"(v) any requirements that the Administrator may prescribe under section 202(g)(3).

"(3) CLEAN-FUEL VEHICLE PROGRAMS.—

"(A) Except to the extent that substitute provisions have been approved by the Administrator under subparagraph (B), the State shall submit to the Administrator, within forty-two months of enactment of this section, a revision to the applicable implementation plan for each area described under section 212(b)(2)(C)(i) to include such measures as may be necessary to ensure the effectiveness of the applicable provisions of the clean-fuel vehicle program prescribed under section 212(b)(2), including all measures necessary to make the use of clean alternative fuels in clean-fuel vehicles (as defined in section 216) economic from the standpoint of vehicle owners. Such a revision shall also be submitted for each area included in the clean fuel-vehicle program under section 212(b)(2)(C)(ii).

"(B) The Administrator shall approve, as a substitute for all or a portion of the clean-fuel vehicle program prescribed under section 212(b)(2), any revision to the relevant applicable implementation plan that in the Administrator's judgment will achieve long-term reductions in ozone-producing and toxic air emissions equal to the applicable performance standard prescribed under section 212(b)(1), or the percentage thereof attributable to the portion of the clean-fuel vehicle program for which the revision is to substitute. The Administrator may approve such revision only if it consists exclusively of provisions other than those required under the Act for the area. Any State seeking approval of such a revision must submit the revision to the Administrator within twenty-four months of enactment of this section. The Administrator must approve or disapprove any such revision within thirty months of enactment of this section. (The Administrator shall publish the revision submitted by a State in the Federal Register upon receipt. Such notice shall constitute a notice of proposed rulemaking on whether or not to approve such revision and shall be deemed to comply with the requirements concerning notices of proposed rulemaking contained in sections 553 through 557 of title 5 of the United States Code (related to notice and comment).) Where the Administrator approves such revision for any area, the State need not submit the revision required by subparagraph (A) for the area with respect to the portions of the Federal Clean-Fuel Vehicle Program for which the Administrator has approved the revision as a substitute.

"(C) Where the Administrator approves under section 214 any market-based alternative emissions reduction plan applicable in an area, the Administrator may approve a plan revision for the area providing for changes to the plan provisions otherwise required by this paragraph, to ensure consistency with such alternative emissions reduction plan.

"(D) If the Administrator determines, under section 179, that the State has failed to submit any portion of the program required under subparagraph (A), then, in addition to any sanctions available under section 179, the State may not receive credit, in any demonstrations of attainment or reasonable further progress for the area, for any emission reductions from implementation of the corresponding aspects of the Federal clean-fuel vehicle requirements established in section 212(b)(2).

"(4) TRANSPORTATION CONTROL.—Within one year after any determination by the Administrator that the levels of vehicle miles traveled or congestion levels in the area exceed the levels projected for purposes of the area's demonstration of attainment or reasonable further progress (or, where applicable, maintenance), the State shall submit a revision to the applicable implementation plan that includes a transportation demand management program for the area. Such program shall consist of measures selected from section 108(f) as necessary to reduce vehicle mile and congestion levels to levels consistent with the plan, and shall be developed consistent with guidance issued by the Administrator pursuant to section 108. In the alternative, the State may offset the impact of increased vehicle miles traveled and congestion levels by implementing other transportation control measures, other mobile source controls, or controls on other source categories that will produce reductions comparable to those that would be achieved by implementation of such transportion demand management program, consistent with the emission reduction schedules in the plan.

Any reference to 'attainment date' in subsection (b), which is incorporated by reference into this subsection, shall refer to the attainment date for serious areas.

"(d) SEVERE AREAS.—Each State in which all or part of a severe area is located shall, with respect to the severe area, make the submissions described under subsection (c) (relating to serious areas), and shall submit by December 31, 2000, an attainment demonstration that meets the requirements of subsection (c)(1), and that includes the provisions required under section 185 (relating to sanctions). Any reference to the term 'attainment date' in subsection (b) or (c), which is incorporated by reference into this subsection (d), shall refer to the attainment date for severe areas.

"(e) CERTAIN NON-SELF-GENERATING (NON-MSA) AREAS.—

"(1) Notwithstanding any other provision of section 181 or this section, a State containing an ozone nonattainment area that does not include and is not adjacent to any part of a Metropolitan Statistical Area or, where one exists, a consolidated Metropolitan Statistical Area (as defined by the United States Office of Management and Budget), which area is treated by the Administrator, in his discretion, as non-self-generating within the meaning of paragraph (2), shall be treated by operation of law as satisfying the requirements of this section if it makes the submissions required under subsection (a) of this section (relating to marginal areas).

"(2) The Administrator may treat an ozone nonattainment area as non-self-generating if he finds that sources of VOC (and, where the Administrator determines relevant, NO_X) emissions within the area do not make a significant contribution to the ozone concentrations measured in the area or in other areas.

"(f) RECLASSIFIED AREAS.—

"(1) GENERAL RULE.—Except as provided under paragraph (2), each State containing an ozone nonattainment area reclassified under section 181(b)(2) shall meet such requirements of subsections (b)–(d) of this section as may be applicable to the area as reclassified, according to the schedules prescribed in connection with such requirements, except that the Administrator may adjust any applicable deadlines (except for attainment dates) to the extent such adjustment is necessary or appropriate to assure consistency among the required submissions.

"(2) EXCEPTION FOR AREAS RECLASSIFIED AS MODERATE.—The requirements of paragraph (1) shall apply to areas reclassified under section 181(b)(1) as moderate areas, except that—

"(A) the attainment date for such reclassified areas shall be December 31, 2000;

"(B) the requirements of subsection (c)(1)(B)–(C) (relating to reasonable further progress for serious areas) shall apply to such reclassified areas in lieu of the requirements of subsection (b)(1); and

"(C) the date for submittal of the provisions required by subparagraph (B) shall be no later than two years from the date of such reclassification.

"FEDERAL OZONE MEASURES

"SEC. 183. (a) CONTROL TECHNIQUES GUIDELINES FOR VOC SOURCES.—Within three years after the date of enactment of this section, the Administrator shall issue control techniques guidelines, in accordance with section 108(c), for seven categories of stationary sources of VOC emissions for which such guidelines have not been issued as of the date of enactment.

"(b) ALTERNATIVE CONTROL TECHNIQUES DOCUMENT FOR NO_X SOURCES.—Within three years after the date of enactment of this section, the Administrator shall issue a document analyzing alternative control techniques for stationary sources of oxides of nitrogen.

"(c) CONSUMER OR COMMERCIAL PRODUCTS.—

"(1) DEFINITIONS.—For the purposes of this subsection:

"(A) The term 'reasonably available controls' means the degree of emissions reduction that the Administrator determines, on the basis of technological and economic feasibility, health, environmental, and energy impacts, is reasonably achievable through the application of any equipment, measures, processes, methods, systems or techniques, including, but not limited to, chemical reformulation, product or feedstock substitution, repackaging, or directions for use, consumption, storage, or disposal.

"(B) The term 'consumer or commercial products' means any substance, product, or article (including any container or packaging) held by any person, the use, consumption, storage, disposal, destruction, or decomposition of which may result in the release of volatile organic compounds. The term does not include fuels or fuel additives regulated under section 211, or motor vehicles, non-road vehicles, and non-road engines as defined under section 216.

"(C) The term 'regulated entities' means—

"(i) manufacturers, processors, wholesale distributors, or importers of consumer or commercial products; or

"(ii) manufacturers, processors, wholesale distributors, or importers that supply the entities listed under clause (i).

"(2) **Report.**—Within two years after the date of enactment of this section, the Administrator shall submit to the Congress a final report on emissions of volatile organic compounds from consumer or commercial products. The report shall list classes or categories of commercial and consumer products which emit significant quantities of volatile organic compounds. The report should consider alternative regulatory approaches for those products, including fees, marketable permits and auctions.

"(3) **Regulations.**—

"(A) Following submission of the report required under paragraph (2), the Administrator may promulgate such regulations as he deems necessary to aid in the attainment of the ozone National Ambient Air Quality Standard by decreasing emissions of volatile organic compounds from classes or categories of consumer or commercial products. Such regulations shall be designed to achieve reductions from the selected product categories to a level equal to the level that would be achieved by the application of reasonably available controls to each such class or category of consumer or commercial products.

"(B) Such regulations may be imposed only with respect to regulated entities.

"(C) Such regulations may include any system or systems of regulation as the Administrator may deem appropriate, including but not limited to requirements for registration and labeling, self-monitoring and reporting, prohibitions, limitations, or fees and other economic incentives (including but not limited to marketable permits and auctions of emissions rights) concerning the manufacture, processing, distribution, use, consumption, or disposal of the product.

"(D) The regulations may exempt health use products for which the Administrator determines there are no suitable substitutes.

"(E) Any fees, charges, or other funds established and collected under such regulations shall be deposited in a special fund in the United States Treasury for licensing and other services, which thereafter shall be available for appropriation, to remain available until expended, to carry out the activities of the United States Environmental Protection Agency for which such fees, charges, or collections are made.

"(4) ENFORCEMENT.—Any regulation established under this subsection shall be treated, for purposes of enforcment of this Act, as a regulation under section 111.

"(5) STATE ADMINISTRATION.—Each State may develop and submit to the Administrator a procedure under State law for implementing and enforcing regulations promulgated under this subsection. If the Administrator finds the State procedure is adequate, he shall approve such procedure. Nothing in this paragraph shall prohibit the Administrator from enforcing any applicable regulations under this subsection.

"(d) **MARINE VESSEL STANDARDS.—**

"(1) SCHEDULE FOR STANDARDS.—

"(A) Within four years after the date of enactment of this Act, the Administrator shall promulgate standards applicable to the emission of any air pollutant from loading and unloading of marine tank vessels which he finds causes, or contributes to, air pollution that may be reasonably anticipated to endanger public health or welfare. In setting such standards, the Administrator shall consider costs, any non-air quality benefits, environmental impacts, energy requirements, and safety factors associated with alternative control techniques.

"(B) Any regulation prescribed under this section (and any revision thereof) shall take effect after such period as the Administrator finds (after consultation with the Secretary of the Department in which the Coast Guard is operating) necessary to permit the development and application of the requisite technology, giving appropriate consideration to the cost of compliance within such period.

"(2) Within six months from the date of enactment, the Secretary of the Department in which the Coast Guard is operating shall issue regulations to ensure the safety of the equipment and operations which are to control emissions from the loading and unloading of marine tank vessels, under section 3703 of title 46 of the United States Code and section 1225 of title 33 of the United States Code.

"(3) COMPLIANCE PROVISIONS.—

"(A) The Administrator shall ensure compliance with the vessel emission standards prescribed under paragraph (1)(A).

"(B) The Secretary of the Department in which the Coast Guard is operating shall ensure compliance with the regulations issued under paragraph (2).

"(4) Until the Administrator promulgates standards under this section, no State or political subdivisions thereof may adopt or attempt to enforce any standard respecting emissions from marine vessels.

"(5) After the Administrator promulgates standards under this section, no State or political subdivision thereof may adopt or attempt to enforce any standard respecting emissions from marine vessels subject to regulation under subparagraph (1) unless such standard is no less stringent than the standards promulgated under paragraph (1).

"(6) ENFORCEMENT.—Any standard established under paragraph (1)(A) shall be treated, for purposes of enforcement of this Act, as a standard under section 111.

"(e) OZONE DESIGN VALUE STUDY.—The Administrator shall conduct a study of whether the methodology in use by the Environmental Protection Agency as of the date of enactment of this section for establishing a design value for ozone provides a reasonable indicator of the ozone air quality of ozone nonattainment areas. The study shall be completed and a report submitted to Congress not later than three years after the date of enactment of this section. The results of the study shall be subject to peer review.

"NORTHEAST TRANSPORT REGION AND COMMISSION

"SEC. 184. A single transport region (within the meaning of section 176(a)), comprised of the States of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, and the Consolidated Metropolitan Statistical Area that includes the District of Columbia, is hereby established by operation of law. The provisions of section 176(a) (1)–(2) shall apply with respect to the transport region established under this section. The Administrator shall convene the commission required (under section 176(b)) as a result of the establishment of such region within six months of the date of enactment of this section.

"SANCTION FOR SEVERE OZONE NONATTAINMENT AREAS FOR FAILURE TO ATTAIN

"SEC. 185. (a) GENERAL RULE.—The revision to the applicable implementation plan required under section 182(d) (relating to the attainment plan for severe ozone nonattainment areas) shall provide that, if the Administrator determines, under section 181(b)(2), that the area has failed to attain by the applicable attainment date, each major stationary source of VOC's located in the area shall, except as otherwise provided under subsection (c), pay a fee, computed in accordance with subsection (b), for each calendar year beginning after the attainment year, until the area is redesignated attainment.

"(b) COMPUTATION OF FEE.—

"(1) The fee shall equal $5,000, adjusted in accordance with paragraph (3), per ton of VOC emitted during the calendar year in excess of 80 percent of the baseline amount, computed under paragraph (2).

"(2) For purposes of this section, the baseline amount shall be computed, in accordance with such guidance as the Administrator may provide, as the lower of the amount of actual VOC emissions ('actuals') or VOC emissions allowed under the permit applicable to the source (or, if no such permit has been issued for the attainment year, the amount of VOC emissions allowed under the applicable implementation plan ('allowables')) during the attainment year. Notwithstanding the preceding sentence, the Administrator may issue guidance authorizing the baseline amount to be determined in accordance with the lower of average actuals or average allowables, determined over a period of more than one calendar year.

"(3) The fee amount under paragraph (1) shall be adjusted annually, beginning in the year beginning after the year of enactment, in accordance with section 402(b)(3)(B)(v) (relating to inflation adjustment).

"(c) EXCEPTION.—Notwithstanding any provision of this section, no source shall be required to pay any fee under subsection (a) with respect to emissions during any year that is treated as an Extension Year under section 181(b)(5).

"(d) FEE COLLECTION BY THE ADMINISTRATOR.—If the Administrator has determined, under section 179(a)(1) (A) or (B) (related to disapproval of an implementation plan) that the fee provisions of the implementation plan do not meet the requirements of this section, or if the Administrator makes a determination, under section 179(a)(1)(C) (related to failure to implement or enforce an applicable implementation plan) that the State is not administering and enforcing the fee required under this section, the Administrator shall, in addition to any other action authorized under this title, collect the fees required under subsection (a). If the Administrator makes such a determination under section 179(a)(1)(C), he may collect fees for periods prior to the determination, plus interest computed in accordance with section 6621(a)(2) of title 26, United States Code (relating to computation of interest on underpayment of Federal taxes), to the extent he finds such fees have not been paid to the State. The provisions of section 402(b)(3)(C) (ii)–(iii) (and the flush language following clause (iii)) (relating to penalties and use of the funds, respectively) shall apply with respect to fees collected under this subsection.

"(e) EXEMPTIONS FOR CERTAIN SMALL AREAS.—For areas with a total population under two hundred thousand which fail to attain the standard by the applicable attainment date, no sanction under this or any other section of the Act shall apply if the area can demonstrate, consistent with guidance issued by the Administrator, that attainment in the area is prevented because of ozone or ozone precursors transported from other areas. This prohibition applies only in cases in which the area has met all requirements and implemented all measures applicable to the area under this Act.".

SEC. 104. ADDITIONAL PROVISIONS FOR CARBON MONOXIDE NONATTAINMENT AREAS.

Part D of title I of the Clean Air Act is amended by adding the following new subpart:

"SUBPART 3—ADDITIONAL PROVISIONS FOR CARBON MONOXIDE NONATTAINMENT REQUIREMENTS

"Sec. 186. Classifications and attainment dates.
"Sec. 187. Plan submissions and requirements.

"CLASSIFICATIONS AND ATTAINMENT DATES

"SEC. 186. (a) CLASSIFICATION BY OPERATION OF LAW AND ATTAINMENT DATES FOR 1988 NONATTAINMENT AREAS.—(1) Each area designated nonattainment for carbon monoxide pursuant to section 110(b)(4) is hereby classified under table 1, by operation of law, as a moderate area or a serious area based on the design value for the area. The design value shall be calculated according to the interpretation methodology issued by the United States Environmental Protection Agency most recently before the date of enactment of this section. For each area classified under this subsection, the primary standard attainment date for carbon monoxide shall be as provided in table 1.

"TABLE 1

Area classification	Design value	Primary standard attainment date
Moderate	9.5–16.4 ppm	December 31, 1995
Serious	16.5 ppm and above	December 31, 2000.

"(2) At the time of publication of the notice required under section 110(b)(4) (promulgating carbon monoxide area designations), the Administrator shall publish a notice announcing the classification (as may be adjusted under paragraph (4)) of each carbon monoxide nonattainment area. The provisions of section 172(a)(1)(B) (relating to lack of notice-and-comment and judicial review) shall apply with respect to such classification.

"(3) An area designated nonattainment for carbon monoxide under section 110(b)(1)(C)(i), but the design value of which is less than 9.5 ppm, shall be classified as a moderate area.

"(4) ADJUSTMENT OF CLASSIFICATION FOR BORDERLINE AREAS.—If an area classified under paragraph (1), table 1, would have been classified in another category if the design value in the area were 5 per centum greater or 5 per centum less than the level on which such classification was based, the Administrator may, in his discretion, by the procedure required under paragraph (2), adjust the classification of the area. In making such adjustment, the Administrator may consider the number of exceedances of the national primary ambient air quality standard for carbon monoxide in the area, the level of pollution transport between the area and the other affected areas, and the mix of sources and air pollutants in the area.

"(5) EXTENSIONS OF ATTAINMENT DATES.—Upon application by any State, the Administrator may extend for one additional year (the 'Extension Year') the date specified in table 1 of subsection (a) if—

"(A) the State has complied with all requirements and commitments pertaining to the area in the applicable implementation plan, and

"(B) no more than one exceedance of the national ambient air quality standard level for carbon monoxide has occurred in the area in the year preceding the Extension Year.

No more than two one-year extensions may be issued under this paragraph for a single nonattainment area.

"(b) NEW DESIGNATIONS AND RECLASSIFICATIONS.—

"(1) NEW DESIGNATIONS TO NONATTAINMENT.—Any area that is designated attainment or unclassifiable for carbon monoxide under section 110(b)(4), and that is subsequently redesignated to nonattainment for carbon monoxide under section 110(b)(3), shall, at the time of the redesignation, be classified by operation of law in accordance with table 1 under subsections (a)(1) and (a)(4). Upon its classification, the area shall be subject to the same requirements under section 110, subpart 1 of this part, and this subpart that would have applied had the area been so classified at the time of the notice under subsection (a)(2), except that any absolute, fixed date applicable in connection with any such requirement is extended by operation of law by a period equal to the length of time between the date of enactment and the date the area is classified.

"(2) RECLASSIFICATION OF MODERATE AREAS UPON FAILURE TO ATTAIN.—

"(A) GENERAL RULE.—Within six months following the applicable attainment date for a carbon monoxide nonattainment area, the Administrator shall determine, based on the area's design value as of the attainment date, whether the area attained the standard by that date. Any moderate area that the Administrator finds has not attained the standard by that date shall be reclassified by operation of law in accordance with table 1 of subsection (a)(1) as a serious area.

"(B) PUBLICATION OF NOTICE.—The Administrator shall publish a notice in the Federal Register, no later than six months following the attainment date, identifying each area that he has determined, under subparagraph (A), as having failed to attain and identifying the reclassification, if any, described under subparagraph (A).

"(c) REFERENCES TO TERMS.—Any reference in this subpart to a 'moderate area' or a 'serious area' shall be considered a reference to a moderate carbon monoxide nonattainment area or a serious carbon monoxide nonattainment area, as classified under this section.

"PLAN SUBMISSIONS AND REQUIREMENTS

"Sec. 187. (a) Moderate Areas.—Each State in which all or part of a moderate area is located shall, with respect to the moderate area (or portion thereof, to the extent specified in guidance of the United States Environmental Protection Agency issued before the date of enactment of this section), submit to the Administrator the State implementation plan revisions (including the plan items) described under paragraphs (1), (2), and (3) within such periods prescribed under those paragraphs, except to the extent the State has made such submissions as of the date of enactment of this section:

"(1) Inventory.—No later than two years from the date of enactment of this section, a comprehensive, accurate, current inventory of actual emissions from all sources, as described in section 172(c)(3), in accordance with guidance provided by the Administrator.

"(2) Savings clause for vehicle inspection and maintenance provisions of the state implementation plan.—Immediately after the date of enactment of this section, for any moderate area (or, within the Administrator's discretion, portion thereof) the plan for which is of the type described in section 182(a)(2)(B), any provisions necessary to ensure that the applicable implementation plan includes the vehicle inspection and maintenance program described in section 182(a)(2)(B).

"(3) PERIODIC INVENTORY.—No later than September 30, 1996, and no later than the end of each three-year period thereafter, until the area is redesignated to attainment, a revised inventory meeting the requirements of subsection (a)(1).

The Administrator may, in his discretion, require States to submit a schedule for submitting any of the revisions or other items required under this subsection. The requirements of this subsection shall apply in lieu of any requirement that the State submit a demonstration that the applicable implementation plan provides for attainment of the carbon monoxide standard by the applicable attainment date in any moderate area.

"(b) SERIOUS AREAS.—Each State in which all or part of a serious area is located shall, with respect to the serious area, make the submissions described under subsection (a) (relating to moderate areas), and submit the revision and other items described under this subsection.

"(1) ATTAINMENT DEMONSTRATION.—By December 31, 1995, a revision to provide, and a demonstration that the plan as revised will provide, for attainment of the carbon monoxide NAAQS by the applicable attainment date.

"(2) ENHANCED VEHICLE INSPECTION AND MAINTENANCE.—Within two years of the date of enactment of this section, a revision that includes provisons for an enhanced vehicle inspection and maintenance program as required in section 182(c)(2) (concerning serious ozone nonattainment areas), except that such program shall be for the purpose of reducing carbon monoxide rather than hydrocarbon emissions.

"(3) TRANSPORTATION CONTROL MEASURES.—Provisions to comply with the requirements for transportation control measures as provided under section 182(c)(4) (concerning serious ozone nonattainment areas), within the period prescribed in that paragraph.

"(4) OXYGENATED FUELS.—Within two years from the date of enactment of this section, a revision to require that gasoline sold, supplied, offered for sale or supply, dispensed, transported or introduced into commerce in the larger of—

"(i) the Consolidated Metropolitan Statistical Area (as defined by the United States Office of Management and Budget) (CMSA) in which the area is located, or "(ii) if the area is not located in a CMSA, the Metropolitan Statistical Area (as defined by the United States Office of Management and Budget) in which the area is located

be blended, during the portion of the year in which the area is prone to high ambient concentrations of carbon monoxide (as determined by the Administrator), with fuels containing such level of oxygen as is necessary, in combination with other measures, to provide for attainment of the carbon monoxide national ambient air quality standard by the applicable attainment date and maintenance of the national ambient air quality standard thereafter in the area. The revision shall provide that such requirement shall take effect no later than October 1, 1993, and shall include a program for implementation and enforcement of the requirement consistent with guidance to be issued by the Administrator. Notwithstanding the preceding sentences in this paragraph, the revision described in this paragraph shall not be required for an area if the State demonstrates to the satisfaction of the Administrator that the revision is not necessary to provide for attainment of the carbon monoxide national ambient air quality standard by the applicable attainment date and maintenance of the national ambient air quality standard thereafter in the area.

"(c) RECLASSIFIED AREAS.—Each State containing a carbon monoxide nonattainment area reclassified under section 186(b)(2) shall meet the requirements of subsection (b) of this section, as may be applicable to the area as reclassified, according to the schedules prescribed in connection with such requirements, except that the Administrator may adjust any applicable deadlines (other than the attainment date) to the extent such adjustment is necessary or appropriate to assure consistency among the required submissions.

"(d) SERIOUS AREAS THAT FAIL TO ATTAIN.—Within three years following publication of a notice under subsection (b)(2)(B) identifying any serious area as having failed to attain the standard, the State within which such area is located shall submit a revision to the applicable implementation plan that includes such additional measures as the Administrator may prescribe (considering all measures that can feasibly be implemented in the area, in light of technological achievability, costs, and any nonair-quality and other air-quality-related health and environmental impacts).".

SEC. 105. ADDITIONAL PROVISIONS FOR PARTICULATE MATTER (PM-10) NONATTAINMENT AREAS.

Part D of title I of the Clean Air Act is amended by adding the following new subpart after subpart 3:

“Subpart 4—Additional Provisions for Particulate Matter Nonattainment Areas

“Sec. 188. Classifications and attainment dates.
“Sec. 189. Plan provisions and schedules for plan submissions.
“Sec. 190. Issuance of RACM guidance.

“CLASSIFICATIONS AND ATTAINMENT DATES

“Sec. 188. (a) Initial Classifications.—Every area designated nonattainment for PM–10 shall be classified by operation of law as a moderate PM–10 nonattainment area (identified in this subpart also as a ‘moderate area’) at the time of such designation. The Administrator must publish in the Federal Register a notice announcing the classification of each PM–10 nonattainment area within sixty days of such designation. The provisions of section 172(a)(1)(B) (relating to lack of notice-and-comment and judicial review) shall apply with respect to such classification.

“(b) Reclassification as Serious.—

“(1) Reclassification before attainment date.—The Administrator may reclassify as a serious PM–10 nonattainment area (identified in this subpart also as a ‘serious area’) any area that he determines cannot practicably attain the national ambient air quality standard for PM–10 by the attainment date (as prescribed in subsection (c)) for moderate areas. The Administrator shall reclassify appropriate areas as serious by the following dates—

“(A) For areas designated nonattainment for PM–10 under section 110(b)(4), the Environmental Protection Agency shall propose to reclassify appropriate areas by June 30, 1991, and take final action by December 31, 1991; and

"(B) For areas subsequently designated nonattainment, the Environmental Protection Agency shall reclassify appropriate areas within eighteen months after the required date for the State's submission of a SIP for the moderate area.

"(2) RECLASSIFICATION UPON FAILURE TO ATTAIN.—If the Administrator finds that any moderate area is not in attainment after the applicable attainment date—

"(A) the area shall be reclassified by operation of law as a serious area; and

"(B) the Administrator shall publish a notice in the Federal Register no later than six months following the attainment date, identifying the area as having failed to attain and identifying the reclassification described under subparagraph (A).

"(c) ATTAINMENT DATES.—Except as provided under subsection (d), the attainment dates for PM–10 nonattainment areas shall be—

"(1) for a moderate area, as expeditiously as practicable but no later than the end of the sixth calendar year after the area's designation as nonattainment, except that, for areas designated nonattainment for PM–10 under section 110(b)(4), the attainment date shall not extend beyond December 31, 1994;

"(2) for a serious area, as expeditiously as practicable but no later than the end of the tenth calendar year beginning after the area's designation as nonattainment, except that, for areas designated nonattainment for PM–10 under section 110(b)(4), the date shall not exceed beyond December 31, 2001.

"(d) EXTENSION OF ATTAINMENT DATE FOR MODERATE AREAS.—Upon application by any State, the Administrator may extend for one additional year (the 'Extension Year') the date specified in paragraph (c)(1) if—

"(1) the State has complied with all requirements and commitments pertaining to the area in the applicable implementation plan, and

"(2) no more than one exceedance of the twenty-four-hour national ambient air quality standard level for PM–10 has occurred in the area in the year preceding the Extension Year, and the annual mean concentration of PM–10 in the area for such year is less than or equal to the standard level.

No more than two one-year extensions may be issued under the subsection for a single nonattainment area.

"(e) EXTENSION OF ATTAINMENT DATE FOR SERIOUS AREAS.—Upon application by any State, the Administrator may extend the attainment date for a serious area beyond the date specified under subsection (c), if attainment by the date established under subsection (c) would be impracticable, the State has complied with all requirements and commitments pertaining to that area in the implementation plan, and the State demonstrates to the satisfaction of the Administrator that the plan for that area includes the most stringent measures that are included in the implementation plan of any State or are achieved in practice in any State, and can feasibly be implemented in the area. At the time of such application, the State must submit a revision to the implementation plan that includes a demonstration of attainment by the most expeditious alternative date practicable. In determining whether to grant an extension, and the appropriate length of time for any such extension, the Administrator may consider the nature and extent of nonattainment, the types and numbers of sources or other emitting activities in the area (including the influence of uncontrollable natural sources and transboundary emissions from foreign countries), the population exposed to concentrations in excess of the standard, the presence and concentration of potentially toxic substances in the mix of particulate emissions in the area, and the technological and economic feasibility of various control measures. The

Administrator may not approve an extension until the State submits an attainment demonstration for the area. The Administrator may grant at most one such extension for an area, of no more than five years.

"(f) WAIVERS FOR CERTAIN AREAS.—The Administrator may, on a case-by-case basis, waive any requirement applicable to any serious area under this subpart where he determines that anthropogenic sources of PM–10 do not contribute significantly to the violation of the PM–10 standard in the area. The Administrator may also waive a specific date for attainment of the standard where he determines that nonanthropogenic sources of PM–10 contribute significantly to the violation of the PM–10 standard in the area.

"PLAN PROVISIONS AND SCHEDULES FOR PLAN SUBMISSIONS

"SEC. 189. (a) MODERATE AREAS.—

"(1) PLAN PROVISIONS.—Each State in which all or part of a moderate area is located shall submit, according to the applicable schedule under paragraph (2), an implementation plan that includes—

"(A) for the purpose of meeting the requirements of section 172(c)(5), a program providing that permits meeting the requirements of section 173 are required for the construction and operation of new and modified major stationary sources of PM–10; and

"(B) either—

"(i) a demonstration (including air quality modeling) that the plan will provide for attainment by the applicable attainment date; or

"(ii) a demonstration that attainment by such date is impracticable.

"(2) SCHEDULE FOR PLAN SUBMISSIONS.—A State shall submit the plan required under subparagraph (1) no later than—

"(A) June 30, 1990, for areas designated nonattainment under section 110(b)(4), except that the provision required under subparagraph (1)(A) (concerning application of the section 173 permit requirements) shall be submitted no later than June 30, 1992;

"(B) eighteen months after the designation as nonattainment, for those areas designated nonattainment after the designations prescribed under section 110(b)(4).

"(b) SERIOUS AREAS.—

"(1) PLAN PROVISIONS.—In addition to the provisions submitted to meet the requirements of paragraph (a)(1) (relating to moderate areas), each State in which all or part of a serious area is located shall submit an implementation plan for such area that includes—

"(A) a demonstration (including air quality modeling)—

"(i) that the plan provides for attainment of the PM–10 national ambient air quality standard by the applicable attainment date, or

"(ii) for any area for which the State is seeking, pursuant to section 188(d), an extension of the attainment date beyond the date set forth in section 188(c), that attainment by that date would be impracticable, and that the plan provides for attainment by the most expeditious alternative date practicable; and

"(B) provisions requiring that such reasonably available control measures as the Administrator has determined necessary (including the adoption of reasonably available control technology by all major stationary sources) be implemented within five years of reclassification of the area to serious, or within three years of issuance by the Administrator of guidance concerning such measures, whichever is later.

"(2) SCHEDULE FOR PLAN SUBMISSIONS.—A State shall submit the demonstration required for an area under paragraph (a)(A) no later than five years after reclassification of the area to serious, except that for areas reclassified under section 188(b)(2), the State shall submit the attainment demonstration within eighteen months after reclassification to serious. A State shall submit the provisions described under paragraph (1)(B) no later than eighteen months after reclassification of the area as a serious area.

"ISSUANCE OF RACM GUIDANCE

"SEC. 190. The Administrator shall issue technical guidance on reasonably available control measures for urban fugitive dust, and emissions from residential wood combustion and prescribed silvicultural and agricultural burning, no later than eighteen months following the date of enactment of this section. He shall also examine other categories of sources contributing to nonattainment of the PM–10 standard, and determine whether additional guidance on reasonably available control measures is needed, and issue any such guidance no later than five years after enactment of this section.".

SEC. 106. ADDITIONAL PROVISIONS FOR AREAS DESIGNATED NONATTAINMENT FOR SULFUR OXIDES, NITROGEN DIOXIDE, AND LEAD.

Part D of title I of the Clean Air Act is amended by adding a new subpart after subpart 4, to read as follows:

"SUBPART 5—ADDITIONAL PROVISIONS FOR AREAS DESIGNATED NONATTAINMENT FOR SULFUR OXIDES, NITROGEN DIOXIDE, OR LEAD

"Sec. 191. Plan submission deadlines.
"Sec. 192. Attainment dates.

"PLAN SUBMISSION DEADLINES

"SEC. 191. (a) Any State containing an area designated or redesignated under section 110(b) as nonattainment with respect to the national primary ambient air quality standards for sulfur oxides, nitrogen dioxide, or lead subsequent to the date of enactment of this section shall submit to the Administrator, within eighteen months of the designation, an applicable implementation plan meeting the requirements of this part.

"(b) Any State containing an area designated nonattainment with respect to national primary ambient air quality standards for sulfur oxides or nitrogen dioxide under section 110(b)(1)(C)(i), but lacking a fully approved implementation plan complying with the requirements of this Act (including part D) as in effect immediately prior to the date of enactment of this section, shall submit to the Administrator, within eighteen months of enactment of this section, an implementation plan meeting the requirements of subpart 1 (except as otherwise prescribed by section 192).

"ATTAINMENT DATES

"SEC. 192. (a) Implementation plans required under section 191(a) shall provide for attainment of the relevant primary standard as expeditiously as practicable but, subject to subsection (d), no later than five years from the date of the nonattainment designation.

"(b) Implementation plans required under section 191(b) shall provide for attainment of the relevant primary national ambient air quality standard within five years from the date of enactment.

"(c) Implementation plans for nonattainment areas for sulfur oxides or nitrogen dioxide with plans that were approved by the Administrator before the date of enactment of this subpart but, subsequent to such approval, were found by the Administrator to be substantially inadequate, shall provide for attainment of the relevant primary standard within five years from the date of such finding.".

SEC. 167. PROVISIONS RELATED TO INDIAN TRIBES.

(a) Section 105(a)(1)(B) of the Clean Air Act is amended by striking "or (4)" and inserting in lieu thereof "(4), or (5)".

(b) Section 302(b) of the Clean Air Act is amended by—

(1) deleting "or" at the end of paragraph (3);

(2) striking the period at the end of paragraph (4) and inserting in lieu thereof a semicolon and "or"; and

(3) adding at the end thereof the following new paragraph to read as follows:

"(5) An agency of an Indian tribe.".

(c) Section 302 of the Clean Air Act is amended by adding new subsection (q) to read as follows:

"(q) The term 'Indian tribe' means any Indian tribe, band, nation, or other organized group or community, including any Alaska Native village, which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.".

(d) Section 110 of the Clean Air Act is amended by adding the following new subsection (t) at the end thereof:

"(t) INDIAN TRIBES.—If an Indian tribe submits an implementation plan to the Administrator pursuant to section 301(d), the plan shall be reviewed in accordance with the provisions for review set forth in subsections (d), (e), and (f) of this section for State plans except as otherwise provided by regulation promulgated pursuant to section 301(d)(2). When such plan becomes effective in accordance with the regulations promulgated under section 301(d), the plan shall become applicable to all areas (except as expressly provided otherwise in the plan) located within the exterior boundaries of the reservation, notwithstanding the issuance of any patent and including rights-of-way running through the reservation.".

(e) Section 301 of the Clean Air Act is amended by adding at the end thereof the following new subsection:

"(d) TRIBAL AUTHORITY.—

"(1) Subject to the provisions of paragraph (2), the Administrator—

"(A) is authorized to treat Indian tribes as States under this Act except for purposes of the requirement that makes available for application by each State no less than one-half of 1 per centum of annual appropriations under section 105; and

"(B) may provide any such Indian tribe grant and contract assistance to carry out functions provided by this Act.

"(2) The Administrator may promulgate regulations specifying those provisions of this Act for which it is appropriate to treat Indian tribes as States. Such treatment shall be authorized only if—

"(A) the Indian tribe has a governing body carrying out substantial governmental duties and powers;

"(B) the functions to be exercised by the Indian tribe pertain to the management and protection of air resources within the exterior boundaries of the reservation; and

"(C) the Indian tribe is reasonably expected to be capable, in the judgment of the Administrator, of carrying out the functions to be exercised in a manner consistent with the terms and purposes of this Act and all applicable regulations.

"(3) The Administrator may promulgate regulations which establish the elements of tribal implementation plans and procedures for approval or disapproval of tribal implementation plans and portions thereof.

"(4) In any case in which the Administrator determines that the treatment of Indian tribes as identical to States is inappropriate or administratively infeasible, the Administrator may provide, by regulation, other means by which the Administrator will directly administer such provisions so as to achieve the appropriate purpose.

"(5) Until such time as the Administrator promulgates regulations pursuant to this subsection, the Administrator may continue to provide financial assistance to eligible Indian tribes under section 105.".

SEC. 108. MISCELLANEOUS.

(a) TRANSPORTATION PLANNING GUIDANCE.—Section 108 of the Clean Air Act is amended by—

(1) revising the first sentence of subsection (e) to read as follows:

"(e) Within nine months after the date of enactment of the Clean Air Act Amendments of 1989 and periodically thereafter as necessary to maintain a continuous process of transportation and air quality planning, including emissions inventory development, the Administrator shall, after consultation with the Secretary of Transportation and State and local officials, update the June 1978 Transportation-Air Quality Planning Guidelines; and

(2) amending the introductory language and subparagraph (A) of paragraph 108(f)(1) to read as follows:

"(f)(1) The Administrator shall, from time to time, publish and make available to appropriate Federal, State, and local environmental and transportation agencies—

"(A) information, prepared as appropriate after consultation with the Secretary of Transportation, regarding the emission reduction potential of transportation control measures, including but not limited to—

"(i) trip-reduction ordinances;

"(ii) employer-based transportation management plans;

"(iii) transit improvements;

"(iv) traffic-flow improvements;

"(v) area-wide rideshare programs;

"(vi) no-drive days;

"(vii) parking-management programs;

"(viii) park-and-ride and fringe parking programs;

"(ix) work-schedule changes; and

"(x) road-pricing and tolls;".

(b) STATE REPORTS ON EMISSIONS-RELATED DATA.—Section 110 of the Clean Air Act is amended by adding a new subsection (u) at the end thereof, to read as follows:

"(u) REPORTS.—Any State shall submit, according to such schedule as the Administrator may prescribe, such reports as the Administrator may require relating to emission reductions, vehicle miles traveled, congestion levels, and any other information the Administrator may deem necessary to assess the development, effectiveness, need for revision, or implementation of any plan or plan revision required under this Act.".

(c) NEW SOURCE STANDARDS OF PERFORMANCE.—

(1) Section 111(b)(1)(B) of the Clean Air Act is amended by—

(A) striking "120 days" and inserting "one year";

(B) striking "90 days" and inserting "one year";

(C) striking "four years" and inserting "eight years";

(D) inserting "Notwithstanding the requirements of the previous sentence, the Administrator need not review any such standard if he determines that such review is not appropriate in light of readily available information on the efficacy of such standard." immediately before the sentence beginning "Standards of performance or revisions thereof"; and

(E) adding a new sentence at the end thereof, to read as follows: "When implementation and enforcement of any requirement of this Act indicate that emission limitations and percent reductions beyond those required by the standards promulgated under this section are achieved in practice, the Administrator shall, when revising those standards, consider the emission limitations and percent reductions achieved in practice.".

(2) Section 111(f)(1) of the Clean Air Act is amended to read as follows:

"(f)(1) For those categories of major stationary sources that the Administrator listed under subsection (b)(1)(A) prior to the date of enactment of the Clean Air Act Amendments of 1989 and for which regulations had not been proposed by the Administrator by such date, the Administrator shall:

"(A) propose regulations establishing standards of performance for at least 25 per centum of such categories of sources within two years of the date of enactment of the Clean Air Act Amendments of 1989;

"(B) propose regulations establishing standards of performance for at least 50 per centum of such categories of sources within four years of the date of enactment of the Clean Air Act Amendments of 1989; and

"(C) propose regulations for the remaining categories of sources within six years of the date of enactment of the Clean Air Act Amendments of 1989;".

(d) REGULATION OF EXISTING SOURCES.—Section 111(d)(1)(A)(i) of the Clean Air Act is amended by striking "or 112(b)(1)(A)" and inserting "or emitted from a source category which is regulated under section 112.".

(e) AUTHORITY TO OBTAIN INFORMATION.—Section 114(a)(1) of the Clean Air Act is amended by—

(1) striking the term "or" and inserting a comma immediately after the phrase "any emission source"; and

(2) inserting "or who manufactures emission control equipment or process equipment, or who the Administrator believes may have information necessary for the purposes set forth in this subsection" immediately after "any person who owns or operates an emission source.".

(f) CONSULTATION.—The second-to-last sentence of section 121 of the Clean Air Act is amended to read as follows: "The Administrator shall update as necessary the original regulations required and promulgated under this section (as in effect immediately before the date of enactment of the Clean Air Act Amendments of 1989) to ensure adequate consultation.".

(g) PERMIT PROCESS FOR ADDRESSING INTERSTATE EFFECTS.—Section 126 of the Clean Air Act is amended by adding a new subsection (d), to read as follows:

"(d) The provisions of this section shall not apply to any source or implementation plan in a State with a permit program fully approved under title IV.".

(h) INCREMENT EXEMPTIONS.—Section 163(c)(1) of the Clean Air Act is amended by—

(1) replacing the comma and "and" at the end of subparagraph (C) with a period;

(2) replacing the period at the end of subparagraph (D) with a comma and "and"; and

(3) adding a new subparagraph (E), to read as follows:

"(E) except for purposes of determining compliance with the maximum allowable increases in ambient concentrations in any area designated as class I under this part, concentrations of particulate matter attributable to the increase in fugitive emissions resulting directly or indirectly from surface coal mines.".

(i) PM-10 INCREMENTS.—

(1) Part C of the Clean Air Act is amended, in section 163, by—

(A) striking the table contained in paragraph (b)(1) and inserting the following table:

“Pollutant	Maximum allowable increase (micrograms per cubic meter)
Particulate matter (measured by PM–10):	
Annual arithmetic mean	4
Twenty-four-hour maximum	8
Sulfur dioxide:	
Annual arithmetic mean	2
Twenty-four-hour maximum	5
Three-hour maximum	25”;

(B) striking the table contained in paragraph (b)(2) and inserting the following table:

“Pollutant	Maximum allowable increase (micrograms per cubic meter)
Particulate matter (measured by PM–10):	
Annual arithmetic mean	17
Twenty-four-hour maximum	30
Sulfur dioxide:	
Annual arithmetic mean	20
Twenty-four-hour maximum	91
Three-hour maximum	512”;

(C) striking the table in paragraph (b)(3) and inserting the following table:

“Pollutant	Maximum allowable increase (micrograms per cubic meter)
Particulate matter (measured by PM–10):	
Annual arithmetic mean	34
Twenty-four-hour maximum	60
Sulfur dioxide:	
Annual arithmetic mean	40
Twenty-four-hour maximum	182
Three-hour maximum	700”;

(D) adding a new paragraph (b)(5) immediately after paragraph (b)(4) to read as follows:

“(5) For determining compliance with the maximum allowable increases in concentrations of particulate matter specified in this subsection and section 165, the baseline areas and baseline dates (for measuring increases over the baseline concentration) in effect with respect to particulate matter prior to the enactment of the Clean Air Act Amendments of 1989 shall remain in effect."; and

(E) adding a new subsection (d) immediately after subsection (c) to read as follows:

"(d) Notwithstanding the amendments to the maximum allowable increases in concentrations of particulate matter in section 163(b) made pursuant to the Clean Air Act Amendments of 1989, or any subsequent revisions to regulations promulgated by the Administrator implementing the maximum allowable increases for particulate matter in section 163(b) as in effect prior to the date of enactment of such Amendments, the maximum allowable increases in concentrations of particulate matter (measured in terms of total suspended particulates) in an applicable implementation plan, and the provisions in such a plan concerning implementation of those maximum allowable increases, shall remain in effect as to an area until plan provisions with respect to sources of PM–10 meeting the requirements of either part C or section 172(c)(5) (as applicable) have been approved by the Administrator and made effective in the applicable implementation plan for that area.".

(2) Section 165 of the Clean Air Act is amended by striking the table contained in subclause (d)(2)(C)(iv) and inserting the following table:

"Pollutant	Maximum allowable increase (micrograms per cubic meter)
Particulate matter (measured by PM-10):	
Annual arithmetic mean	17
Twenty-four-hour maximum	30
Sulfur dioxide:	
Annual arithmetic mean	20
Twenty-four-hour maximum	91
Three-hour maximum	325".

(3) Section 166(a) of the Clean Air Act is amended to read as follows:

"(a)(1) In the case of any pollutant other than sulfur dioxide or particulate matter for which a national ambient air quality standard is promulgated or revised, the Administrator may promulgate or revise air quality increments or other regulations to prevent the significant deterioration of air quality which would result from emissions of such pollutant.

"(2) If, after the date of enactment of the Clean Air Act Amendments of 1989, the Administrator changes the indicator for the particulate matter national ambient air quality standard, he may also, in his discretion, modify the maximum allowable increases in concentrations for particulate matter specified in sections 163 and 165. Any new maximum allowable increases shall be comparable in terms of stringency to the maximum allowable increases in effect at the time of such change in the national ambient air quality standard. Nothing in this subsection shall be construed to require the Administrator to promulgate new maximum allowable increases if he promulgates a new particulate matter national ambient air quality standard.".

(j) DELEGATION.—The second sentence of section 301(a)(1) of the Clean Air Act is amended by inserting the phrase "subject to section 307(d) of the Act" immediately following the word "regulations".

(k) DEFINITIONS.—Section 302 of the Clean Air Act is amended by—

(1) inserting a new subsection (r) immediately after new subsection (q) to read as follows:

"(r) The term 'Federal implementation plan' means a plan (or portion thereof) promulgated by the Administrator to fill all or a portion of a gap or otherwise correct all or a portion of an inadequacy, in a State implementation plan, and which includes enforceable emission limitations or other control measures, means or techniques (including economic incentives, such as fees, marketable permits, or auctions of emissions allowances), but does not necessarily provide for attainment of the relevant national ambient air quality standard.";

(2) inserting a new subsection (s) at the end thereof to read as follows:

"(s) The term—

"(1) 'VOC' means volatile organic compound, as defined by the Administrator;

"(2) 'PM–10' means particulate matter with an aerodynamic diameter less than or equal to a nominal ten micrometers, as measured by such method as the Administrator may determine;

"(3) 'NAAQS' means national ambient air quality standard;

"(4) 'NO_x' means oxides of nitrogen; and

"(5) 'CO' means carbon monoxide."; and

(3) Adding a new sentence at the end of subsection (g) to read as follows:

"Such term includes any precursors to the formation of any air pollutant, to the extent the Administrator has identified such precursor or precursors for the particular purpose for which the term 'air pollutant' is used.".

(l) PREENFORCEMENT REVIEW.—

(1) Section 304(e) is amended by striking the phrase "the Administrator or".

(2) Section 307(e) is amended to read as follows:

"(e) Judicial review of regulations, or other actions of the Administrator under color of this Act, is not authorized, except as provided in this section.".

(m) INTERPRETATION OF STATE IMPLEMENTATION PLAN.—Section 307 of the Clean Air Act is amended by adding at the end thereof the following new subsection:

"(h) INTERPRETATION OF STATE IMPLEMENTATION PLAN.—An interpretation of an applicable implementation plan by the Administrator issued or presented before or after the date of enactment of the Clean Air Act Amendments of 1989 (including an interpretation presented in a judicial proceeding before or after such date) shall, if contested by a State or other party, be given deference by a court if the interpretation concerns the extent to which the applicable implementation plan complies with the requirements of the Clean Air Act, and if the Administrator's interpretation is rational.".

(n) ETHICS, FINANCIAL DISCLOSURE, AND CONFLICTS OF INTEREST.—The Clean Air Act is amended by repealing section 318.

(o) POLLUTION PREVENTION.—Section 101 is amended by—

(1) amending section (a)(3) to read as follows:

"(3) that air pollution prevention (that is, the reduction or elimination, through any measures, of the amount of pollutants produced or created at the source) and air pollution control at its source is the primary responsibility of States and local governments; and"

(2) amending subsection (b)(4) by inserting "prevention and" immediately after "pollution".

(3) adding a new subsection (c) to read as follows:

"(c) A primary goal of this subchapter is to require or otherwise promote Federal, State, and local governmental actions for pollution prevention."

(p) Title I of the Clean Air Act is amended to add new section 193, not to be codified, to read as follows:

"SEC. 193. GENERAL SAVINGS CLAUSE.—All regulations, standards, rules, notices, orders or guidance promulgated or issued by the Administrator under this Act as in effect before the date of enactment of the Clean Air Act Amendments of 1989 shall remain in effect, except to the extent provided otherwise under this Act, inconsistent with any provision of this Act, or revised by the Administrator.".

(q) Section 162(a) of the Clean Air Act is amended by adding at the end thereof the following: "The extent of the areas designated as class I under this section shall conform to any changes in the boundaries of such areas which have occurred subsequent to the enactment of the Clean Air Act Amendments of 1977, or which may occur subsequent to the enactment of the Clean Air Act Amendments of 1989.".

(r) Section 164(a) of the Clean Air Act is amended by inserting immediately before the sentence beginning "Any area (other than an area referred to in paragraph (1) or (2)" the following: "The extent of the areas referred to in paragraph (1) and (2) shall conform to any changes in the boundaries of such areas which have occurred subsequent to the enactment of the Clean Air Act Amendments of 1977, or which may occur subsequent to the enactment of the Clean Air Act Amendments of 1989.".

(s) RESEARCH.—Section 108 of the Clean Air Act is amended by adding at the end thereof a new subsection (g) to read as follows:

"(g) RESEARCH ON RISKS TO ECOSYSTEMS.—The Administrator may assess the risks to ecosystems from exposure to criteria air pollutants (as identified by the Administrator in his sole discretion)."

(t) Section 307 of the Clean Air Act is amended by adding new subsection (i) to read as follows:

"(i) No report required by this Act to be submitted to Congress shall be subject to judicial review.".

SEC. 109. CONFORMING AMENDMENTS.

(a) Part A of title I of the Clean Air Act is amended by—

(1) striking, in section 106, the reference to "section 107" and inserting "section 110";

(2) striking section 107(d) and redesignating the succeeding subsections accordingly;

(3) striking, in section 111(d)(2)(A), the reference to "section 110(c)" and inserting "section 110(g) and section 180";

(4) striking, in section 113(a)(5), "section 110(a)(2)(I) and";

(5) inserting, in section 114(d)(1) after "section 110(c)", "(as in effect before the date of enactment of the Clean Air Act Amendments of 1989), section 110(g) or section 180";

(6) striking, in section 115(b), the reference to "section 110(a)(2)(H)" and inserting "section 110(e)(4)";

(7) striking, in section 120(a)(2)(B)(v), the reference to "section 110(f) or (g)" and inserting "section 110(o) or (p)";

(8) inserting, in section 125(f) after "section 110(c)", "(as in effect before the date of enactment of the Clean Air Act Amendments of 1989), section 110(g) or section 180"; and

(9) striking, in section 126, each reference to "section 110(a)(2)(E)(i)" and inserting "section 111(d)(4)(A)".

(b) Part C of title I of the Clean Air Act is amended by—

(1) striking, in section 161, "identified pursuant to section (d)(1)(D) or (E)" and inserting "designated pursuant to section 110(b) as attainment or unclassifiable within the meaning of sections 110(b)(1)(A)(ii) or (iii) respectively";

(2) striking, in section 162(b), "identified pursuant to section 107(d)(1)(D) or (E)" and inserting "designated pursuant to section 110(b) as attainment or unclassifiable within the meaning of section 110(b)(1)(A)(ii) or (iii) respectively";

(3) striking, in section 165(a)(3), the reference to "section 110(j)" and inserting "section 110(s)";

(4) striking, in section 166(e), the reference to "section 110(c)" and inserting "section 110(g)";

(5) striking, in section 167, the reference to "included in the list promulgated pursuant to paragraph (1)(D) or (E) of subsection (d) of section 107 of this Act" and inserting "designated pursuant to section 110(b) as attainment or unclassifiable within the meaning of section 110(b)(1)(A)(ii) or (iii) respectively"; and

(6) striking, in section 169A, all references to "section 110(c)" and inserting "section 110(g)".

(c) Part D of title I of the Clean Air Act is amended by striking sections 176 (a) and (b);

(d) Title III of the Clean Air Act is amended by—

(1) striking, in section 307(a)(1), the reference to "section 110(f)" and inserting "section 110(o)"; and

(2) striking, in section 313, the reference to "section 110(a)(2)(F)(v)" and inserting "section 110(d)(7)".

TITLE II—PROVISIONS RELATING TO MOBILE SOURCES

SEC. 201. CLEAN FUEL REQUIREMENTS.

(a) Section 216 of the Clean Air Act is amended by adding the following new subsections:

"(7) The term 'urban bus' has the meaning provided under regulations of the Administrator promulgated under section 202(a).

"(8) The term 'clean alternative fuel' means methanol, ethanol, natural gas, propane, electricity, or other motor vehicle fuel or power source such as reformulated gasoline if such other fuel or power source has comparably low emissions, as determined under regulations of the Administrator.

"(9) The term 'clean-fuel vehicle' means any light-duty vehicle or light-duty truck that (A) can operate on clean alternative fuel, and (B), when operated on clean alternative fuel, complies with emissions standards (as prescribed by regulations of the Administrator) that require substantially lower (i) ozone-producing hydrocarbon emissions and (ii) total air toxic emissions, than are emitted from conventional gasoline-fueled vehicles in compliance with applicable standards prescribed under this Act.

"(10) The term 'light-duty truck' has the meaning provided under regulations of the Administrator promulgated under section 202(a).".

(b) The Clean Air Act is amended by striking section 212 and inserting the following new section:

"CLEAN FUEL REQUIREMENTS

"SEC. 212. (a) URBAN BUSES.—(1)(A) Not later than twelve months after the enactment of this section, the Administrator shall promulgate regulations requiring the use of clean alternative fuel in new urban buses operated primarily in a Metropolitan Statistical Area (as defined by the United States Office of Management and Budget) with a 1980 population of one million or more. The regulations shall provide that all new urban buses purchased or placed into service by owners or operators of urban buses in such areas must be capable of operating, and must be exclusively operated, on clean alternative fuel. The Administrator shall prescribe a schedule phasing in the applicability of the requirements established by this paragraph over the 1991 through 1994 model years as follows: 10 percent of new urban buses purchased or placed into service in model year 1991; 25 percent of new urban buses purchased or placed into service in model year 1992; 60 percent of new urban buses purchased or placed into service in model year 1993; 100 percent of new urban buses purchased or placed into service in 1994 and later model years. Emissions of particulate matter from buses purchased or placed into service as required by this paragraph shall not exceed 0.10 grams per brake horsepower-hour.

"(B) Application of the requirements prescribed under this paragraph may be delayed by up to two years if the Administrator determines that such a delay will substantially advance the technology, improve the benefits, or lower the costs of the urban bus program established by this subsection.

"(2) The regulations under section 202(a)(1) applicable to emissions of particulate matter from 1991 through 1993 model year urban buses capable of operating on diesel fuel shall contain a standard which provides that emissions of particulate matter from such buses may not exceed 0.25 grams per brake horsepower-hour. The emission standard shall be prescribed by regulation within one hundred and eighty days after enactment of this section.

"(b) CLEAN-FUEL VEHICLE PROGRAM.—The Administrator shall establish a program to significantly increase the number of clean-fuel vehicles in the most serious ozone nonattainment areas.

"(1) PERFORMANCE STANDARDS.—Not later than twelve months after enactment of this section, the Administrator shall promulgate regulations establishing performance standards for the Clean-Fuel Vehicle Program required under this subsection. The Administrator shall base the performance standards on the long-term reductions in ozone-producing and toxic air emissions that, in his judgment, may reasonably be anticipated to result from the use of clean alternative fuels formulated to provide maximum reductions of such emissions. Such performance standards shall be the measure of the emissions reductions that programs submitted as substitutes for the Clean-Fuel Vehicle Program by States under section 182(c)(3)(B), or by motor vehicle manufacturers or fuel refiners under section 214, must achieve to receive the Administrator's approval under those sections.

"(2) PROGRAM REQUIREMENTS.—Not later than eighteen months after the enactment of this section, the Administrator shall promulgate regulations establishing initial requirements, and subsequently may revise such regulations as necessary, for attainment of the performance standards prescribed under paragraph (1). The regulations shall provide for the following:

"(A) CLEAN-FUEL VEHICLES.—Clean-fuel vehicles shall be produced, sold, and distributed to ultimate purchasers in numbers that meet or exceed the following schedule (as may be revised under subparagraph (D)): five hundred thousand vehicles in model year 1995, seven hundred and fifty thousand vehicles in model year 1996, and one million vehicles per year in model years 1997 through 2004. The Administrator may by regulation grant a manufacturer an appropriate amount of credits toward (i) compliance with applicable emission standards prescribed under 202(a) for selling clean-fuel vehicles that achieve emission reductions greater than those required of such vehicles; and (ii) fulfillment of the requirements prescribed under this subparagraph for selling more clean-fuel vehicles than regulations under this subparagraph require or heavy-duty truck engines capable of operating on clean alternative fuel. A manufacturer granted credits may transfer some or all of the credits for use by one or more other manufacturers in demonstrating compliance with emission standards prescribed under section 202(a) or the requirements prescribed under this subparagraph. The Administrator may make the credits available for use after consideration of enforceability, environmental and economic factors and upon such terms and conditions as he finds appropriate.

"(B) CLEAN FUELS.—The clean alternative fuels on which the vehicles required under subparagraph (A) can operate shall be made available in the areas where the vehicles are to be sold and operated in a manner to be specified by the Administrator. At a minimum, one such fuel shall be offered for retail sale at service stations dispensing at least fifty thousand gallons of motor vehicle fuel per month, on average. The Administrator shall determine the clean alternative fuels to be made available based on motor vehicle manufacturers' projections of future sales of clean-fuel vehicles and consultations with the affected State and local governments. If the Administrator determines that the sale of clean-fuel vehicles has created a demand for clean alternative fuels outside of the areas in which such vehicles are required to be sold, or motor vehicle manufacturers are prepared to make vehicles designed to operate exclusively on clean alternative fuel available on a broad basis, he may require that the clean alternative fuels on which the vehicles sold under subparagraph (A) can operate also be made available in major nationwide transportation corridors. The Administrator may by regulation grant persons subject to the requirements prescribed under this subparagraph an appropriate amount of credits for exceeding such requirements, and any person granted credits may transfer some or all of the credits for use by one or more persons in demonstrating compliance with such requirements. The Administrator may make the credits available for use after consideration of enforceability, environmental and economic factors and upon such terms and conditions as he finds appropriate. The Administrator may also by regulation establish specifications for any clean alternative fuel made available under this subparagraph as he finds necessary to reduce or eliminate an unreasonable risk to public health, welfare, or safety associated with its use or to ensure acceptable vehicle maintenance and performance characteristics.

"(C) PROGRAM SCOPE.—The clean-fuel vehicles required under subparagraph (A) shall be sold in—

"(i) areas designated nonattainment for ozone under section 110(b)(5), having a 1988 ozone design value at or above 0.18 parts per million (as calculated according to the most recent interpretation methodology issued prior to the enactment of this section by the United States Environmental Protection Agency), having a 1980 population of two hundred and fifty thousand or more, and for which the Administrator has not approved, under section 182(c)(3)(B), State provisions wholly replacing the Clean-Fuel Vehicle Program, and

"(ii) any other area at the request of the Governor of the State in which the area is located, upon the approval of the Administrator. The Administrator shall approve any such request where the Governor of the State has made a determination that inclusions of the area in the Clean Fuel Vehicle Program is appropriate and would result in progress toward attainment of any national ambient air quality standard and the Administrator finds that such determination is not arbitrary or capricious.

Sales of the clean-fuel vehicles shall be allocated among such areas based on population, vehicles sales and such other factors as the Administrator finds appropriate (including State provisions approved under section 182(c)(3)(B) partly replacing the Clean-Fuel Vehicle Program and requests under subparagraph (D) for an increase in the number of clean-fuel vehicles required to be sold under this subsection).

"(D) ADJUSTMENTS TO PROGRAM.—

"(i) Except as provided under clause (ii), if one or more areas are exempted in whole or in part from the Clean-Fuel Vehicle Program under section 182(c)(3)(B), or included in the Clean-Fuel Vehicle Program under subparagraph (C)(ii), the Administrator, by regulation, shall—

"(I) revise the total number of clean-fuel vehicles that must be produced, sold, and distributed under subparagraph (A) by an amount proportional to the change in the total population covered by the program as a result of such area or areas being exempted in whole or in part from or included in the program, and

"(II) revise as appropriate the requirements prescribed under subparagraph (B) regarding the availability of clean alternative fuels in such area or areas.

"(ii) The Governor of any State containing an area included in the Clean-Fuel Vehicle Program under subparagraph (C)(ii) may submit to the Administrator a request to increase the number of clean-fuel vehicles required to be sold in the area under the program. The Administrator shall approve any such request where the Governor of the State has made a determination that the requested increase is appropriate and would result in progress toward attainment of any national ambient air quality standard and the Administrator finds that such determination is not arbitrary or capricious. If the Administrator approves one or more such requests, he shall, by regulation—

"(I) increase the total number of clean-fuel vehicles that must be produced, sold, and distributed to ultimate purchasers under subparagraph (A) by the amount requested, and

"(II) revise as appropriate the requirements prescribed under subparagraph (B) regarding the availability of clean alternative fuels in the areas affected.

"(iii) The requirements prescribed under subparagraphs (A) and (B) may be delayed by up to two years or decreased if the Administrator determines

"(I) within eighteen months of enactment of this section that a delay will substantially advance the technology, improve the benefits, or lower the costs of the Clean-Fuel Vehicle Program, or

"(II) that a delay or decrease is appropriate due to the likelihood of a national economic recession.

In the event the Administrator makes such a determination, he may revise as appropriate the number of clean-fuel vehicles required to be sold in a particular year.

"(iv) Any additional requirements prescribed under this subparagraph shall become applicable after such period as the Administrator finds necessary for the requisite vehicles and fuels to be made available, giving appropriate consideration to model availability and the cost of compliance within such period.

In developing the regulations to implement and enforce the Clean-Fuel Vehicle Program prescribed by this subsection, the Administrator shall hold at least one public hearing and shall consider the ozone, toxic and global warming benefits of the program; safety and public health issues and measures necessary to avoid any risks involved; ways to ensure customer acceptance; the expected cold start performance, serviceability, durability, and reliability of the vehicles likely to be produced; other environmental, economic, energy, national security, and safety implications of the program; along with the results of ongoing problems demonstrating the use of motor vehicles operated on clean alternative fuels.

"(c) INFORMATION COLLECTION.—(1) For purposes of enforcing regulations implementing this section, the Administrator may by regulation require manufacturers, distributors, and retailers of motor vehicles or motor vehicle fuels to establish and maintain records, make reports, and provide information concerning the sales of (A) motor vehicles capable of operating on clean alternative fuel, and (B) clean alternative fuels. Nothing in this subsection shall be construed to limit the Administrator's authority under sections 114, 206, or 208.

"(2) Any records, reports or information obtained under this subsection shall be available to the public, except that upon a showing satisfactory to the Administrator by any person that records, reports, or information, or particular portions thereof (other than emission data), to which the Administrator has access under this subsection would, if made public, divulge methods or processes entitled to protection as trade secrets of such person, the Administrator shall consider such record, report, or information or particular portion thereof confidential in accordance with the purposes of section 1905 of title 18 of the United States Code. Any authorized representative of the Administrator (including an authorized contractor acting as a representative of the Administrator) shall be considered an employee of the United States for purposes of section 1905 of title 18. Nothing in this section shall prohibit the Administrator or authorized representative of the Administrator (including any authorized contractor acting as a representative of the Administrator) from disclosing records, reports, or information to other officers, employees, or authorized representatives of the United States (including any authorized contractor acting as a representative of the Administrator) concerned with carrying out this Act or, when relevant, in any proceeding under this Act. Nothing in this section shall authorize the withholding of information by the Administrator or any officer or employee under his control (including any authorized contractor acting as a representative of the Administrator) from the duly authorized committees of the Congress.

"(d) CONSULTATION WITH DEPARTMENT OF ENERGY AND DEPARTMENT OF TRANSPORTATION.—The Administrator shall consult with the Secretaries of the Department of Energy and the Department of Transportation in carrying out his duties under this section.".

(c) Section 202(a)(4) of the Clean Air Act is amended by striking the phrase "standards prescribed under this subsection" every place it occurs and inserting the phrase "requirements prescribed under this title."

SEC. 202. EMISSIONS OF HYDROCARBONS, CARBON MONOXIDE, AND OXIDES OF NITROGEN FROM PASSENGER CARS.

(a) Sections 202(b)(1) (A) and (B) of the Clean Air Act are amended to read as follows:

"(1)(A) The regulations under subsection (a) of this section applicable to emissions of hydrocarbons from 1980 and later model year light-duty vehicles and engines shall contain standards which provide that emissions of total hydrocarbons from such vehicles may not exceed 0.41 gram per vehicle mile. The regulations under subsection (a) applicable to emissions of hydrocarbons from 1993 and later model year light-duty vehicles and engines also shall contain standards which provide that emissions of nonmethane hydrocarbons from 40 and 80 per centum of each manufacturer's 1993 and 1994 model year vehicles and engines respectively, and 100 per centum of 1995 and later model year vehicles and engines, may not exceed 0.25 gram per vehicle mile. The regulations under subsection (a) of this section applicable to emissions of carbon monoxide from 1981 and later model year light-duty vehicles and engines shall contain standards which provide that emissions of carbon monoxide from such vehicles may not exceed 3.4 grams per vehicle mile.

"(B) The regulations under subsection (a) of this section applicable to emissions of oxides of nitrogen from 1981 through 1992 model year light-duty vehicles and engines shall contain standards which provide that such emissions from such vehicles and engines may not exceed 1.0 gram per vehicle mile. The regulations under subsection (a) of this section applicable to 1993 and later model year light-duty vehicles and engines shall contain standards which provide that such emissions from each manufacturer's vehicles and engines may not exceed the levels specified in table 1:

"TABLE 1.—Emissions of NO_x from 1993 and later model year light-duty vehicles

Model year	Standard	Percentage of each manufacturer's fleet subject to standard
1993	1.0 gram per vehicle-mile ("gpm").	60 percent.
	0.7 gpm	40 percent.
1994	1.0 gpm	20 percent.
	0.7 gpm	80 percent.
1995 and later model years	0.7 gpm	100 percent.".

(b) Section 202(b)(1) is amended by striking subparagraph (C) and inserting the following new subparagraph:

"(C) The Administrator may promulgate regulations under subsection (a)(1) revising any standard prescribed or previously revised under this subsection, as needed to protect public health or welfare, taking costs into account. Any revised standard shall require a reduction of emissions from the standard that was previously applicable.".

(c) Section 202(b)(2) of the Clean Air Act is amended to read as follows:

"(2) Emission standards under paragraph (1), and measurement techniques on which such standards are based (if not promulgated prior to the enactment of paragraph (1)), shall be prescribed by regulations within one hundred and eighty days after such date.".

SEC. 203. EMISSIONS OF HYDROCARBONS AND CARBON MONOXIDE FROM LIGHT-DUTY TRUCKS.

(a) Section 202(c) of the Clean Air Act is amended by striking subsection (c) and inserting the following new subsection:

"(c) Emissions of HC and CO From Light-Duty Trucks.—(1) The regulations under subsection (a) applicable to emissions of hydrocarbons and carbon monoxide from the light-duty trucks specified in table 2 shall contain standards which provide that such emissions from 40 and 80 per centum of each manufacturer's 1994 and 1995 model year light-duty trucks respectively and 100 per centum of 1996 and later model year light-duty trucks, may not exceed the levels specified in the table:

"Table 2.—Emissions of HC and CO from light-duty trucks

Light-duty truck ("LDT") class	Pollutant	Standard
LDT's with loaded vehicle weight of 3,750 lbs. and less ("Light-LDT's").	Total HC	0.41 gpm.
LDT's with loaded vehicle weight of greater than 3,750 lbs. ("Heavy-LDT's").	Total HC	0.50 gpm.
Light-LDT's	CO	4.20 gpm.
Heavy-LDT's	CO	5.50 gpm.

"(2) Emission standards under paragraph (1) and measurement techniques on which the standards are based (if not promulgated prior to the enactment of paragraph (1)), shall be prescribed by regulations within one hundred and eighty days after such date.

"(3) The Administrator may promulgate regulations under subsection (a)(1) revising any standard prescribed or previously revised under this subsection, as needed to protect public health and welfare, taking costs into account. Any revised standard shall require a reduction of emissions from the standard which was previously applicable.".

(b) Section 206(f)(1) of the Clean Air Act is amended by inserting "and light-duty trucks" immediately after "light-duty vehicles and engines".

SEC. 204. CARBON MONOXIDE EMISSIONS AT COLD TEMPERATURES.

Section 202 of the Clean Air Act is amended by adding the following new subsection:

"(h) COLD CO STANDARD.—(1) Not later than twelve months after the enactment of this subsection, the Administrator shall promulgate regulations under subsection (a) of this section applicable to emissions of carbon monoxide from 1993 and later model year light-duty vehicles and light-duty trucks when operated at 20 degrees Fahrenheit. The regulations shall contain standards which provide that, on average, emissions of carbon monoxide from a manufacturer's vehicles when operated at 20 degrees Fahrenheit may not exceed, in the case of light-duty vehicles, 10.0 grams per mile, and in the case of light-duty trucks, a level comparable in stringency to the standard applicable to light-duty vehicles. The standards also shall provide that each manufacturer's light-duty vehicle and light-duty truck fleets shall comply with applicable standards according to the following schedule: at least 40 percent of 1993 model year vehicles; at least 80 percent of 1994 model year vehicles; and 100 percent of 1995 and later model year vehicles. The regulations shall provide that such standards be met by averaging emission levels established for every engine family subject to the standards at the time the engine family is certified under section 206.

"(2)(A) Not later than December 31, 1993, the Administrator shall complete a study assessing the need for further reductions in emissions of carbon monoxide and the maximum reductions in such emissions achievable from 1998 and later model year light-duty vehicles and light-duty trucks when operated at 20 degrees Fahrenheit.

"(B) The Administrator may promulgate (and from time to time revise) regulations under subsection (a)(1) of this section applicable to emissions of carbon monoxide from 1998 and later model year light-duty vehicles and light-duty trucks when operated at 20 degrees Fahrenheit, as needed to protect public health and welfare, taking costs into account.

"(3) The Administrator also may promulgate regulations under subsection (a)(1) applicable to emissions of carbon monoxide from heavy-duty vehicles and engines when operated at cold temperatures.".

SEC. 205. EVAPORATIVE EMISSIONS.

Section 202 of the Clean Air Act is amended by adding the following new subsection:

"(i) CONTROL OF EVAPORATIVE EMISSIONS.—The Administrator may promulgate (and from time to time revise) regulations applicable to evaporative emissions of hydrocarbons from all gasoline-fueled motor vehicles (1) during operation and (2) over two or more days of nonuse, under ozone-prone summertime conditions (as determined by regulations of the Administrator). The regulations shall take effect as expeditiously as possible and shall require the greatest degree of emission reduction achievable by means reasonably expected to be available for production during any model year to which the regulations apply, giving appropriate consideration to cost, energy and safety factors associated with the application of the technology.".

SEC. 206. MOBILE SOURCE-RELATED AIR TOXICS.

Section 202 of the Clean Air Act is amended by adding a new subsection to read as follows:

"(j) MOBILE SOURCE-RELATED AIR TOXICS.—(1) Not later than eighteen months after the enactment of this subsection, the Administrator shall complete a study of the need for and feasibility of controlling emissions of toxic air pollutants which are unregulated under title II and associated with motor vehicles and motor vehicle fuels, and the need for and feasibility of controlling such emissions. The Administrator may focus the study on those categories of emissions that in his judgment pose the greatest risk to human health or about which significant uncertainties remain.

"(2) After completing the study prescribed under paragraph (1), the Administrator may promulgate (and from time to time revise) regulations under subsection (a)(1) of this section or section 211(c)(1) containing such requirements as the Administrator in his discretion deems approriate based on the study prescribed under subparagraph (1) and such other information as is available to him.".

SEC. 207. EMISSION CONTROL DIAGNOSTICS SYSTEMS.

(a) Section 202 of the Clean Air Act is amended by adding the following new subsection:

"(g) EMISSIONS CONTROL DIAGNOSTICS.—

"(1) RULEMAKING.—The Administrator, after consideration of environmental benefits and economic factors, may promulgate (and from time to time revise) regulations requiring manufacturers to install on all new motor vehicles and motor vehicle engines diagnostics systems capable of—

"(A) accurately identifying emission-related systems deterioration or malfunction which could cause or result in failure of the vehicle to comply with emission standards established under this section,

"(B) alerting the vehicle's owner or operator to the likely need for emission-related components or systems maintenance or repair,

"(C) storing and retrieving fault codes specified by the Administrator, and

"(D) providing access to stored information in a manner specified by the Administrator.

"(2) EFFECTIVE DATE.—The regulations prescribing emission control diagnostics systems under paragraph (1) of this subsection (and any revision thereof) shall take effect after such period as the Administrator finds necessary to permit the development and application of the requisite technology, giving appropriate consideration to the cost of compliance within such period.

"(3) STATE INSPECTION.—The Administrator, by regulation, may require States that have implementation plans under section 110 containing motor vehicle inspection and maintenance programs to amend their plans within two years of promulgation of the regulations to provide for inspection of emission control diagnostics systems (as prescribed by regulations under paragraph (1) of this subsection) and the maintenance or repair of malfunctions or system deterioration identified by or affecting such diagnostics systems.

"(4) INFORMATION AVAILABILITY.—The Administrator, by regulation, may require manufacturers to provide any person engaged in the business of repairing or servicing motor vehicles or motor vehicle engines with any information needed to make use of the emission control diagnostics systems prescribed under this subsection, including instructions for making emissions-related repairs.".

(b) Section 207(a)(3) of the Clean Air Act is amended by striking the last sentence and inserting the following new sentence: "The term 'designed for emission control' as used in the preceding sentence means a catalytic converter, a thermal reactor, an emission control diagnostics system, or other component installed on or in a vehicle for the sole or primary purpose of reducing vehicle emissions (not including those vehicle components which were in general use prior to model year 1968 and the primary function of which is not related to emission control).".

(c) Section 207(b) is amended by striking the second to last sentence and inserting the following new sentence: "For purposes of the warranty under this subsection, for the period after twenty-four months or twenty-four thousand miles (whichever first occurs) the term 'emission control device or system' means a catalytic converter, a thermal reactor, an emission control diagnostics system, or other component installed on or in a vehicle for the sole or primary purpose of reducing vehicle emissions.".

SEC. 208. HEAVY-DUTY TRUCKS.

Section 202(a)(3) of the Clean Air Act is amended by—

(a) striking subparagraphs (A), (B), (C), (D), and (E) and inserting the following new subparagraphs:

"(A)(i) Unless the standard is changed as provided in subparagraph (B), regulations under paragraph (1) of this subsection applicable to emissions of hydrocarbons, carbon monoxide, oxides of nitrogen and particulate matter from classes and categories of heavy-duty vehicles or engines manufactured during or after model year 1983 shall contain standards which reflect the greatest degree of emission reduction achievable through the application of technology which the Administrator determines will be available for the model year to which such standards apply, giving appropriate consideration to cost, energy, and safety factors associated with the application of such technology.

"(ii) In establishing classes or categories of vehicles or engines for purposes of regulations under this paragraph, the Administrator may base such classes or categories on gross vehicle weight, horsepower, type of fuel used, or other appropriate factors.

"(B) On the basis of information available to him concerning the effects of air pollutants emitted from heavy-duty vehicles or engines and from other sources of mobile source related pollutants on the public health and welfare, and taking costs into account, the Administrator may promulgate regulations under paragraph (1) of this subsection revising any standard promulgated under or prior to the enactment of subparagraph (A) (or previously revised under this subparagraph).";

(b) redesignating subparagraph (F) as subparagraph (C); and

(c) adding a new subparagraph (D) to read as follows:

"(D) The Administrator shall study the practice of rebuilding heavy-duty engines and the impact rebuilding has on engine emissions. On the basis of that study and other information available to him, the Administrator may prescribe requirements to control rebuilding practices, including standards applicable to emissions from any rebuilt heavy-duty engine (whether or not the engine is past it statutory useful life), which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare taking costs into account. Any regulations shall take effect after a period the Administrator finds necessary to permit the development and application of the requisite control measures, giving appropriate consideration to the cost of compliance within the period.".

SEC. 209. NONROAD ENGINES AND VEHICLES.

(a) Section 216 of the Clean Air Act is amended by adding the following new subsections:

"(11) The term 'nonroad engine' means an internal combustion engine (including the fuel system) that is not used in a motor vehicle or a vehicle used solely for competition, or that is not subject to standards promulgated under section 111 of section 202.

"(12) The term 'nonroad vehicle' means a vehicle that is powered by a nonroad engine and that is not a motor vehicle or a vehicle used solely for competition.".

(b) Subsection (1) of section 216 of the Clean Air Act is amended by striking the phrase "new motor vehicles or new motor vehicle engines" every place it occurs and inserting "new motor vehicles, new motor vehicle engines, new nonroad vehicles or new nonroad engines".

(c) The Clean Air Act is amended by striking section 213 and inserting the following new section:

"NON-ROAD ENGINES AND VEHICLES

"SEC. 213. (a) EMISSION STANDARDS.—The Administrator may promulgate (and from time to time revise) regulations containing standards applicable to emissions from those classes or categories of nonroad engines and nonroad vehicles which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare, taking costs into account. The regulations shall apply to the useful life of the engines or vehicles (as determined by the Administrator).

"(b) EFFECTIVE DATE.—Standards under this section shall take effect at the earliest possible date considering the lead time necessary to permit the development and application of the requisite technology, giving appropriate consideration to the cost of compliance within such period.

"(c) SAFE CONTROLS.—Effective with respect to engines or vehicles to which standards under this section apply, no emission control device, system, or element of design shall be used in a new nonroad engine or new nonroad vehicle for purposes of complying with such standards if such device, system, or element of design will cause or contribute to an unreasonable risk to public health, welfare, or safety in its operation or function. In determining whether an unreasonable risk exists, the Administrator shall consider factors including those described in section 202(a)(4)(B).

"(d) ENFORCEMENT.—The standards under this section shall be subject to sections 206, 207, and 208, with such modifications as the Administrator deems appropriate, and shall be enforced in the same manner as standards prescribed under section 202. The Administrator shall revise or promulgate regulations as may be necessary to determine compliance with and enforce standards in effect under this section.".

SEC. 210. VEHICLE CERTIFICATION.

(a) Section 206(a) is amended by adding the following new paragraphs:

"(4)(A) Not later than twelve months after the enactment of this paragraph, the Administrator shall revise the regulations promulgated under this subsection to add test procedures capable of determining whether 1993 and later model year light-duty vehicles and light-duty trucks, when properly maintained and used, will pass the inspection methods and procedures established under section 207(b) for that model year, under conditions reasonably likely to be encountered in the conduct of inspection and maintenance programs, but which those programs cannot reasonably influence or control. The conditions shall include, but not necessarily be limited to, fuel characteristics, ambient temperature, and short (30 minutes or less) waiting periods before tests are conducted. The Administrator shall not grant a certificate of conformity under this subsection for any 1993 or later model year vehicle or engine that he concludes cannot pass the test procedures established under this paragraph.

"(B) From time to time, the Administrator may revise the regulations promulgated under paragraph (A), as he deems appropriate.

"(5) To the maximum extent feasible, considering costs, environmental benefits and technology, the Administrator shall prescribe regulations permitting manufacturers to demonstrate compliance with section 202(a) emission standards through averaging of emissions of vehicle or engine families, within a manufacturer's fleet or among manufacturers' fleets and over time, upon such terms and conditions as he finds appropriate. In devising any program under this paragraph, the Administrator shall consider factors such as the enforceability of any such program and the potential for adverse environmental impacts.".

(b) Section 206(a)(1) is amended by striking the third sentence and inserting the following new sentence: "In the case of any original equipment manufacturer (as defined by the Administrator in regulations promulgated before the enactment of the Clean Air Amendments of 1989) of vehicles or vehicle engines whose projected sales in the United States for any model year (as determined by the Administrator) will not exceed three hundred, the Administrator shall not require, for purposes of determining compliance with regulations under section 202 for the useful life of the vehicle or engine, operation of any vehicle or engine manufactured during such model year for more than five thousand miles or one hundred and sixty hours, respectively, unless the Administrator by regulation prescribes otherwise. The Administrator shall apply any adjustment factors he deems appropriate to assure that each vehicle or engine will comply during its useful life (as determined under section 202(d)) with the regulations prescribed under section 202.".

SEC. 211. IN-USE COMPLIANCE—RECALL.

Section 207(c) of the Clean Air Act is amended by redesignating paragraph (3) as paragraph (7) and adding new paragraphs (3), (4), (5), and (6) to read as follows:

"(3) With respect to any determination of nonconformity applicable to emissions of nonmethane hydrocarbons ("NMHC") from 1993 and later model year light-duty vehicles or engines conforming at the time of certification to the 0.25 gram per mile ("gpm") NMHC standard prescribed under section 202(b)(1)(A), the Administrator shall apply—

"(A) to 1993 and 1994 model year vehicles, a standard of 0.32 gpm;

"(B) to 1995 model year vehicles, a standard of 0.25 gpm to 40 per centum, and a standard of 0.32 gpm to 60 percentum, of each manufacturer's vehicles and engines;

"(C) to 1996 model year vehicles, a standard of 0.25 gpm to 80 per centum, and a standard of 0.32

gpm to 20 per centum, of each manufacturer's vehicles and engines;

"(D) to 1997 and later model year vehicles, a standard of 0.25 gpm to 100 per centum of each manufacturer's vehicles and engines.

In the case of each manufacturer's 1995 and later model year vehicles, the Administrator shall apply the more stringent of the standards applicable under this paragraph to those engine families which the manufacturer shall designate at the time of certification.

"(4) With respect to any determination of nonconformity applicable to emissions of total hydrocarbons ("HC") and carbon monoxide ("CO") from 1994 and later model year light-duty trucks conforming at the time of certification to the standards prescribed under section 202(c)(1), the Administrator shall apply—

"(A) to 1994 and 1995 model year light-duty trucks with mileages of fifty thousand or less,

"(i) standards of 0.41 gpm of HC and 5.20 gpm of CO in the case of trucks with a loaded vehicle weight of three thousand seven hundred and fifty pounds or less ("Light-LDTs"); and

"(ii) standards of 0.50 gpm of HC and 6.70 gpm of CO in the case of trucks with a loaded vehicle weight of greater than three thousand seven hundred and fifty pounds ("Heavy-LDTs");

"(B) to 1994 and 1995 model year light-duty trucks with mileages greater than fifty thousand, standards of 0.80 gpm of HC and 10.0 gpm of CO;

"(C) to 40 and 80 per centum of each manufacturer's 1996 and 1997 model year Light-LDTs and Heavy-LDTs respectively,

"(i) standards of 0.41 gpm of HC and 4.20 gpm of CO in the case of Light-LDTs; and

"(ii) standards of 0.50 gpm of HC and 5.50 gpm of CO in the case of Heavy-LDTs;

"(D) to 60 and 20 per centum of each manufacturer's 1996 and 1997 model year Light-LDTs and Heavy-LDTs respectively,

"(i) the standards specified in subparagraph (A) to trucks with mileages of fifty thousand or less; and

"(ii) standards specified in subparagraph (B) to trucks with mileages greater than fifty thousand; and

"(E) to 1998 and later model year light-duty trucks, the standards specified in subparagraph (C).

In the case of each manufacturer's 1995 and later model year light-duty trucks, the Administrator shall apply the more stringent of the HC and CO standards applicable under this paragraph to those engine families which the manufacturer shall designate at the time of certification.

"(5) The Administrator may require a manufacturer to audit the effectiveness of repairs performed on its vehicles under a remedial plan ordered under this subsection or undertaken by the manufacturer on its own initiative.

"(6) For the purpose of determining whether a notice of nonconformity or failure should be issued under this subsection, the Administrator may require a manufacturer to procure and test, or have procured and tested at the manufacturer's expense, in-use vehicles or engines in a manner the Administrator considers appropriate.".

SEC. 212. COMPLIANCE PROGRAM FEES.

Part A of title II of the Clean Air Act is amended by adding the following new section at the end thereof:

"MOTOR VEHICLE COMPLIANCE PROGRAM FEES

"SEC. 217. (a) FEE COLLECTION.—The Administrator may promulgate (and from time to time revise) regulations establishing fees to recover all costs to the Government associated with—

"(1) new vehicle or engine certification under section 206(a),

"(2) new vehicle or engine compliance monitoring and testing under section 206(b), "(3) in-use vehicle or engine compliance monitoring and testing under section 207(c), and

"(4) vehicle fuel economy programs under sections 2003(d) and 2006 of the Motor Vehicle Information and Costs Savings Act.

The Administrator may establish a fee schedule based on such factors as he finds appropriate and equitable, including the number of vehicles or engines produced under a certificate of conformity.

"(b) SPECIAL TREASURY FUND.—Any fees collected under this section shall be deposited in a special fund in the United States Treasury for licensing and other services which thereafter shall be available for appropriation, to remain available until expended, to carry out the Agency's activities for which the fees were collected.

"(c) LIMITATION ON FUND USE.—Moneys in this fund shall not be used until after the first fiscal year after the first July 1 when fees are paid into the fund.

"(d) ADMINISTRATOR'S TESTING AUTHORITY.—Nothing in this subsection shall be construed to limit the Administrator's authority to require manufacturer or confirmatory testing as provided in this p[illegible].

SEC. 213. INFORMATION COLLECTION.

Section 208 of the Clean Air Act is amended by striking subsections (a) and (b) and adding the following new subsections:

"(a) MANUFACTURER'S RESPONSIBILITY.—Every manufacturer of new motor vehicles or new motor vehicle engines, and every manufacturer of new motor vehicle or engine parts or components, shall establish and maintain records, perform tests, make reports and provide information the Administrator may reasonably require to determine whether the manufacturer has acted or is acting in compliance with this part and regulations thereunder, or to assist in the development of regulations authorized by this part, and shall, upon request of an officer or employee duly designated by the Administrator (including an authorized contractor acting as a representative of the Administrator), permit such officer or employee (including an authorized contractor acting as a representative of the Administrator) at reasonable times to have access to and copy such records.

"(b) ENFORCEMENT AUTHORITY.—For the purposes of enforcement of this section and section 207(c), officers or employees duly designated by the Administrator (including authorized contractors acting as representatives of the Administrator), upon presenting appropriate credentials to the manufacturer or person in charge, are authorized—

"(1) to enter, at reasonable times, any establishment of the manufacturer, or of any person whom the manufacturer engages to perform any activity required by subsection (a), for the purposes of inspecting or observing any activity conducted pursuant to subsection (a), and

"(2) to inspect records, files, papers, processes, controls, and facilities used in performing any activity required by subsection (a), by such manufacturer or by any person whom the manufacturer engages to perform any such activity.

"(c) AVAILABILITY TO THE PUBLIC; TRADE SECRETS.—Any records, reports, or information obtained in this section shall be available to the public, except that upon a showing satisfactory to the Administrator by any person that records, reports, or information, or a particular portion thereof (other than emission data), to which the Administrator has access under this section, if made public, would divulge methods or processes entitled to protection as trade secrets of that person, the Administrator shall consider the record, report, or information or particular portion thereof confidential in accordance with the purposes of section 1905 of title 18. of the United States Code. Any authorized representative of the Administrator (including an authorized contractor acting as a representative of the Administrator) shall be considered an employee of the United States for purposes of section 1905 of title 18. Nothing in this section shall prohibit the Administrator or authorized representative of the Administrator (including any authorized contractor acting as a representative of the Administrator) from disclosing records, reports, or information to other officers, employees, or authorized representatives of the United States (including any authorized contractor acting as a representative of the Administrator) concerned with carrying out this Act or when relevant in any proceeding under this Act. Nothing in this section shall authorize the withholding of information by the Administrator or any officer or employee under his control (including any authorized contractor acting as a representative of the Administrator) from the duly authorized committees of the Congress.".

SEC. 214. FUEL VOLATILITY.

Section 211 of the Clean Air Act is amended by adding the following new subsection (h):

"(h) REID VAPOR PRESSURE REQUIREMENTS.—

"(1) Not later than six months after enactment of this subsection, the Administrator shall promulgate regulations making it unlawful for any person during the high ozone season (as defined by the Administrator) to sell, offer for sale, dispense, supply, offer for supply, transport, or introduce into commerce gasoline whose

Reid vapor pressure exceeds 9.0 pounds per square inch (psi). Such regulations shall also establish more stringent Reid vapor pressure standards as the Administrator finds necessary to generally achieve comparable evaporative emissions (on a per-vehicle basis) nationwide, taking into consideration the enforceability of such standards, the need of an area for emission control, and economic factors.

"(2) Such regulations shall provide that the requirements of this subsection shall take effect not later than the high ozone season for 1992, and shall include such provisions as the Administrator determines are necessary to implement and enforce the requirements of this subsection.

"(3) In establishing standards for fuel volatility under this subsection, the Administrator may permit gasoline containing at least 9 but not more than 10 per centum ethanol (by volume) to exceed the applicable Reid vapor pressure requirements by up to 1.0 psi.".

SEC. 215. DIESEL FUEL SULFUR CONTENT.

Section 211 of the Clean Air Act is amended by adding the following new subsection to read as follows:

"(i) SULFUR CONTENT REQUIREMENTS FOR DIESEL FUEL.—(1) Effective October 1, 1993, no person shall manufacture, sell, supply, offer for sale or supply, dispense, transport or introduce into commerce motor vehicle diesel fuel which contains a concentration of sulfur in excess of 0.05 per centum (by weight) or which fails to meet a cetane index minimum of 40.

"(2) Not later than twelve months after the enactment of this subsection, the Administrator shall promulgate regulations to implement and enforce the requirements of paragraph (1). The Administrator may require manufacturers and importers of diesel fuel not intended for use in motor vehicles to dye such fuel in a particular manner in order to segregate it from motor vehicle diesel fuel.

"(3) The sulfur content of fuel required to be used in the certification of 1991 through 1993 model year heavy-duty diesel vehicles and engines shall be 0.10 per centum (by weight). The sulfur content and cetane index minimum of fuel required to be used in the certification of 1994 and later model year heavy-duty diesel vehicles and engines shall comply with the regulations promulgated under paragraph (2).".

SEC. 216. NON-ROAD FUELS.

(a) Section 211(a) of the Clean Air Act is amended by inserting the phrase "(including any fuel or fuel additive used exclusively in nonroad engines or nonroad vehicles)" immediately after "fuel or fuel additive", the first time that it appears.

(b) Section 211(b)(2)(B) is amended by striking "or" after "vehicle" and inserting in lieu thereof a comma, and by inserting immediately after "vehicle engine," the phrase "nonroad engine or nonroad vehicle,".

(c) Section 211(c)(1) is amended by striking "or" after "motor vehicle" and inserting in lieu thereof a comma, and by inserting immediately after "motor vehicle engine" a comma followed by the phrase "nonroad engine or nonroad vehicle".

SEC. 217. FUEL WAIVERS.

(a) Section 211(f)(1) of the Clean Air Act is amended by inserting "(A)" immediately after "(1)" and by adding the following new subparagraph:

"(B) Effective upon the date of this subparagraph's enactment, it shall be unlawful for any manufacturer of any fuel or fuel additive to first introduce into commerce, or to increase the concentration in use of, any fuel or fuel additive for use by any person in motor vehicles manufactured after model year 1974 which is not substantially similar to any fuel or fuel additive utilized in the certification of any model year 1975, or subsequent model year, vehicle or engine under section 206.".

(b) Section 211(f)(3) is amended by inserting "(A)" immediately after "(1)".

SEC. 218. MARKET-BASED ALTERNATIVE CONTROLS.

The Clean Air Act is amended by striking section 214 and inserting a new section to read as follows:

"MARKET-BASED ALTERNATIVE CONTROLS

"SEC. 214. (a) ALTERNATIVE CONTROLS IN SOME OZONE NONATTAINMENT AREAS.—(1) Not later than twelve months after the enactment of this section, the Administrator shall promulgate regulations that, to the maximum extent feasible and notwithstanding any other section of this title, allow any manufacturer or fuel refiner to control emissions from motor vehicles and motor vehicle fuels by one or more means different in type or degree from, and instead of, emission control measures prescribed under this title and section 182(b)(3) (relating to refueling vapor recovery), so long as the alternative control measures achieve at least the same emissions reductions (as determined by the Administrator) over the same time period as the control measures that they would replace. The regulations shall establish performance standards for motor vehicles and motor vehicle fuels marketed in areas described under section 212(b)(2)(C)(i). The Administrator shall base such performance standards on the emission reductions that, in his judgment, may reasonably be anticipated to result from implementation of the control measures for which motor vehicle manufacturers or fuel refiners may substitute alternative controls under this subsection. (For purposes of this subsection, the emissions reductions to be attributed to the requirements prescribed under sections 212(b)(2)(A) and (B) shall be the same as those determined by the Administrator under section 212(b)(1).) The regulations shall provide that any manufacturer or fuel refiner may substitute alternative control measures if it demonstrates, and the Administrator finds, that the combination of control measures that it would employ (including any prescribed control measures) would meet or exceed the performance standard applicable to it. Any manufacturer or fuel refiner seeking approval of alternative control measures must submit a proposal to the Administrator within twenty-four months of enactment of this section. The Administrator must approve or disapprove any such proposal within thirty months of enactment of this section. The Administrator shall publish any proposal to employ alternative control measures submitted by a manufacturer or fuel refiner in the Federal Register upon receipt. Such notice shall constitute a notice of proposed rulemaking on whether to approve or disapprove the proposal and be deemed to comply with the requirements concerning notice of proposed rulemaking contained in sections 553 through 557 of title 5 of the United States Code (relating to notice and comment).) Until the Administrator finds that the manufacturer or refiner has succeeded in demonstrating that it would meet or exceed the performance standard, the manufacturer or refiner shall remain subject to all of the applicable requirements prescribed under this title. The regulations also shall provide for enforcement of alternative control measures approved under this subsection.

"(2) The regulations promulgated under this subsection shall allow to the maximum extent feasible manufacturers and fuel refiners to demonstrate compliance with the performance standards prescribed under paragraph (1) through averaging of reductions in ozone-producing emissions among manufacturers and fuel refiners, and over time, so long as averaging would achieve at least the same emissions reductions (as determined by the Administrator) as would be achieved by compliance with such performance standards in the absence of such averaging.

"(b) NATIONWIDE ALTERNATIVE CONTROLS.—The Administrator may promulgate regulations that, notwithstanding any other section of this title, allow any manufacturer or fuel refiner to control emissions from motor vehicles or motor vehicles fuels by one or more means different in type or degree from, and instead of, emission control measures prescribed under this title or section 182(b)(3) of title I (relating to refueling vapor recovery), if first it demonstrates, and the Administrator finds, that the alternative control measures it would employ would achieve at least the same emissions reductions (as determined by the Administrator) over the same time period as the control measures that they would replace. The regulations promulgated under this subsection may also permit manufacturers, fuel refiners, and fuel marketers to demonstrate compliance with applicable control measures through averaging of reductions of ozone-producing emissions among manufacturers, fuel refiners, and fuel marketers, and over time, so long as such averaging would achieve at least the same emissions reductions (as determined by the Administrator) as would be achieved by compliance with such performance standards in the absence of such averaging. The regulations shall also provide for enforcement of alternative control measures approved under this section.".

SEC. 219. PREEMPTION OF STATE FUEL REGULATION.

Section 211(c)(4)(A) of the Clean Air Act is amended to read as follows:

"(4)(A) Except as otherwise provided in subparagraph (B) or (C), no State (or political subdivision) may prescribe or attempt to enforce, for the purposes of motor vehicle emission control, any control or prohibition respecting any characteristic or component of a fuel or fuel additive in a motor vehicle or motor vehicle engine—

"(i) if the Administrator has found that no control or prohibition of the characteristic or component of a fuel or fuel additive under paragraph (1) is necessary and has published his finding in the Federal Register, or "(ii) if the Administrator has prescribed under paragraph (1) a control or prohibition applicable to such characteristic or component of a fuel or fuel additive, unless the State prohibition or control of such characteristic or component of a fuel or fuel additive is identical to the prohibition or control prescribed by the Administrator.".

(2) Section 211(c)(4)(C) is amended by adding the following new language at the end:

"The Administrator may find that a State control or prohibition is necessary to achieve that standard if no other measures that would bring about timely attainment exist, or if other measures exist and are technically possible to implement, but are unreasonable or impracticable. The Administrator may make a finding of necessity under this subparagraph even if the plan for the area does not contain an approved demonstration of timely attainment.".

SEC. 220. ENFORCEMENT.

(a) INSPECTIONS AND TESTING.—Section 203(a)(2) of the Clean Air Act is amended to read as follows:

"(2)(A) for any person to fail or refuse to permit access to or copying of records or to fail to make reports or provide information required under section 208;

"(B) for any person to fail or refuse to permit entry, testing or inspection authorized under section 206(c) or section 208;

"(C) for any person to fail or refuse to perform tests, or have tests performed as required under section 207(c) or section 208;".

(b) TAMPERING WITH VEHICLE EMISSION CONTROLS.—Section 203(a)(3) is amended to read as follows:

"(3)(A) for any person to remove or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this title prior to its sale and delivery to the ultimate purchaser, or for any person to remove or render inoperative any device or element of design after sale and delivery to the ultimate purchaser; or

"(B) for any person to manufacture or sell, or offer to sell, any part or component intended for use with, or as part of, any motor vehicle or motor vehicle engine, where a principal effect of the part or component is to bypass, defeat, or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this title, and where the person knows or should know that the part or component is being offered for sale for such use or put to such use; or".

(c) Definition.—Section 216 is amended by adding the following new subsection:

"(13) The term 'motor vehicle or engine part manufacturer' as used in sections 207 and 208 means any person engaged in the manufacturing, assembling or rebuilding of any device, system, part, component or element of design which is installed in or on motor vehicles or motor vehicle engines.".

(d) Civil and Administrative Penalties.—Section 205 of the Clean Air Act is amended to read as follows:

"Sec. 205. (a) Civil Penalties.—Any person who violates sections 203(a)(1) or 203(a)(4), any manufacturer or dealer who violates section 203(a)(3)(A), or any person who violates regulations prescribed under sections 212(a)(1) or 212(b)(2) shall be subject to a civil penalty of not more than $25,000. Any person other than a manufacturer or dealer who violates section 203(a)(3)(A) or any person who violates section 203(a)(3)(B) shall be subject to a civil penalty of not more than $2,500. Any such violation with respect to paragraph (1), (3)(A), or (4) of section 203(a) shall constitute a separate offense with respect to each motor vehicle or motor vehicle engine. Any such violation with respect to section 203(a)(3)(B) shall constitute a separate offense with respect to each part or component. Any person who violates section 203(a)(2), or regulations prescribed under section 212(c), shall be subject to a civil penalty of not more than $25,000 per day of violation.

"(b) CIVIL ACTIONS.—The Administrator may commence a civil action to assess and recover any civil penalty prescribed in subsection (a) of this section, section 211(d), or section 213(d). Any action under this subsection may be brought in the district court of the United States for the district in which the violation is alleged to have occurred or in which the defendant resides or has his principal place of business, and the court shall have jurisdiction to assess a civil penalty. In determining the amount of any civil penalty to be assessed under this subsection, the court shall take into account the gravity of the violation, the economic benefit or savings (if any) resulting from the violation, the size of the violator's business, the violator's history of compliance with this title, action taken to remedy the violation, the effect of the penalty on the violator's ability to continue in business, and such other matters as justice may require. In any such action, subpoenas for witnesses who are required to attend a district court in any district may run into any other district.

"(c) ADMINISTRATIVE ASSESSMENT OF CERTAIN PENALTIES.—

"(1) ADMINISTRATIVE PENALTY AUTHORITY.—The Administrator may assess any civil penalty prescribed in subsection (a) of this section, section 211(d), or section 213(d), provided that the maximum amount of penalty sought against each violator in a penalty assessment proceeding shall not exceed $200,000, except where the Administrator and the Attorney General jointly determine that a matter involving a larger penalty amount is appropriate for administrative penalty assessment. Any such determination by the Administrator and the Attorney General shall not be subject to judicial review. Assessment of a civil penalty under this subsection shall be by an order made on the record after opportunity for a hearing in accordance with sections 554 and 556 of title 5 of the United States Code. The Administrator may issue rules for discovery and other procedures for hearings under this paragraph. Before issuing such an order, the Administrator shall give written notice to the person to be assessed an administrative penalty of the Administrator's proposal to issue such order and provide such person an opportunity to request such a hearing on the order, within fifteen days of the date the notice is received by such person. The Administrator may compromise, modify, or remit, with or without conditions, any administrative penalty which may be imposed under this subsection.

"(2) DETERMINING AMOUNT.—In determining the amount of any civil penalty assessed under this subsection, the Administrator shall take into account the gravity of the violation, the economic benefit or savings (if any) resulting from the violation, the size of the violator's business, the violator's history of compliance with this title, action taken to remedy the violation, the effect of the penalty on the violator's ability to continue in business, and such other matters as justice may require.

"(3) EFFECT OF ADMINISTRATOR'S ACTION.—

"(A) Action by the Administrator under this subsection shall not affect or limit the Administrator's authority to enforce any provision of this Act; except that any violation, (i) with respect to which the Administrator has commenced and is diligently prosecuting an action under this subsection, or (ii) for which the Administrator has issued a final order not subject to further judicial review and the violator has paid a penalty assessment under this subsection, shall not be the subject of civil penalty action under subsection (b).

"(B) No action by the Administrator under this subsection shall affect any person's obligation to comply with any section of this Act.

"(4) FINALITY OF ORDER.—An order issued under this subsection shall become final thirty days after its issuance unless a petition for judicial review is filed under paragraph (5).

"(5) JUDICIAL REVIEW.—Any person against whom a civil penalty is assessed in accordance with this subsection may seek review of the assessment in the United States District Court for the District of Columbia, or for the district in which the violation is alleged to have occurred, in which such person resides, or where such person's principal place of business is located, within the thirty day period beginning on the date a civil penalty order is issued and by simultaneously sending a copy of the filing by certified mail to the Administrator and the Attorney General. The Administrator shall file in the court a certified copy, or certified index, as appropriate, of the record on which the order was issued within thirty days. The court shall not set aside or remand the order unless there is not substantial evidence in the record, taken as a whole, to support the finding of a violation or unless the Administrator's assessment of the penalty constitutes an abuse of discretion, and the court shall not impose additional civil penalties unless the Administrator's assessment of the penalty constitutes an abuse of discretion. In any proceedings, the United States may seek to recover civil penalties assessed under this section.

"(6) COLLECTION.—If any person fails to pay an assessment of a civil penalty imposed by the Administrator as provided in this subsection—

"(A) after the order making the assessment has become final, or

"(B) after a court in an action brought under paragraph (5) has entered a final judgment in favor of the Administrator,

the Administrator shall request the Attorney General to bring a civil action in an appropriate district court to recover the amount assessed (plus interest at rates established pursuant to section 6621(a)(2) of title 26, United States Code, from the date of the final order or the date of the final judgment, as the case may be). In such an action, the validity, amount, and appropriateness of the penalty shall not be subject to review. Any person who fails to pay on a timely basis the amount of an assessment of a civil penalty as described in the first sentence of this paragraph shall be required to pay, in addition to that amount and interest, the United States' enforcement expenses, including but not limited to attorneys fees and costs for collection proceedings, and a quarterly nonpayment penalty for each quarter during which such failure to pay persists. The nonpayment penalty shall be in an amount equal to 10 per centum of the aggregate amount of that person's penalties and nonpayment penalties which are unpaid as of the beginning of such quarter.".

(e) ENFORCEMENT OF FUELS REGULATIONS.—Section 211(d) of the Clean Air Act is amended to read as follows:

"(d) PENALTIES AND INJUNCTIONS.—

"(1) CIVIL PENALTIES.—Any person who violates subsection (a), (f), or (g) of this section or the regulations prescribed under subsection (c), (h), or (i) of this section or the regulations prescribed subsection 212(b)(2)(B) or who fails to furnish any information or conduct any tests required by the Administrator under subsection (b) of this section shall be liable to the United States for a civil penalty of not more than the sum of $25,000 for each and every day of each such violation and the amount of economic benefit or savings resulting from the violation. Any violation with respect to a regulation prescribed under subsection (c) of this section or subsection 212(b)(2)(B) which establishes a regulatory standard based upon a multiday averaging period shall constitute a separate day of violation for each and every day in the averaging period. Civil penalties shall be assessed in accordance with the provisions of subsections 205 (b) and (c).

"(2) INJUNCTIVE AUTHORITY.—The district courts of the United States shall have jurisdiction to restrain violations of subsections (a), (f), and (g) of this section and of the regulations prescribed under subsection (c), (h), or (i) of this section or paragraph (2)(B) of section 212(b), to award other appropriate relief, and to compel the furnishing of information and the conduct of tests required by the Administrator under subsection (b) of this section. Actions to restrain such violations and compel such actions shall be brought by and in the name of the United States. In any such action, subpoenas for witnesses who are required to attend a district court in any district may run into any other district.

(f) MISFUELING.—Section 211 is amended by deleting subsection (g) and inserting the following new subsection:

"(g) MISFUELING.—No person shall introduce, or cause or allow the introduction of, leaded gasoline into any motor vehicle which is labeled 'unleaded gasoline only,' which is equipped with a gasoline tank filler inlet designed for the introduction of unleaded gasoline, which is a 1990 or later model year motor vehicle, or which that person knows or should know is a vehicle designed solely for the use of unleaded gasoline. Nothing in this section shall limit the applicability of section 211(d)(3).".

SEC. 221. TECHNICAL AMENDMENTS.

The Clean Air Act is amended by—

(a) deleting section 202(a)(6);

(b) in section 202(b)(3), deleting "(3) For purposes of this part—" and redesignating subparagraphs (A), (B), and (C) of section 202(b)(3) as paragraphs (14), (15), and (16) of section 216;

(c) deleting section 202(b)(4);

(d) deleting section 202(b)(5);

(e) in section 202(b)(6)

(1) deleting "(A)" after "(6)",

(2) deleting subparagraph (B), and

(3) redesignating paragraph (6) as paragraph (3);

(f) deleting section 202(b)(7);

(g) deleting section 203(c);

(h) deleting "announce in the Federal Register and" in section 206(e);

(i) in section 206(f)

(1) deleting "(1)" after "(f)", and

(2) deleting section 206(f)(2);

(j) striking, in section 207(g), "(but not designed for emission control under the terms of the last three sentences of subsection 207(a)(1)" and inserting "(but not designed for emission control under the terms of the last sentence of section 207(a)(3))"; and

(k) deleting, in section 231(a), paragraph (1) and redesignating paragraphs (2) and (3) as paragraphs (1) and (2) respectively.

TITLE III—HAZARDOUS AIR POLLUTANTS

SEC. 301. TECHNOLOGY-BASED STANDARDS FOR HAZARDOUS AIR POLLUTANTS.

Section 112 of the Clean Air Act is amended to read as follows:

"HAZARDOUS AIR POLLUTANTS

"SEC. 112. (a) DEFINITIONS.—For the purposes of this section—

"(1) The term 'major source'—

"(A) for pollutants other than radionuclides, means any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, ten metric tons per year or more of any hazardous air pollutant or twenty-five metric tons per year or more of any combination of hazardous air pollutants which have been listed pursuant to subsection (b). The Administrator may establish a lesser quantity for a major source other than specified in the previous sentence, on the basis of the potency, characteristics of the air pollutant, or other relevant factors.

"(B) for radionuclides, shall have the meaning specified by the Administrator by rule, considering radiation dose.

"(2) The term 'area source' means any source that is not a major source but that is a member of a source category listed under this section based on aggregate emissions, or potential aggregate emissions, of a listed pollutant or pollutants in an area.

"(3) The term 'new source' means a stationary source the construction or reconstruction of which is commenced after the Administrator proposes regulations under this section establishing an emission standard applicable to such source category or subcategory pursuant to subsection (d) or (f).

"(4) The terms 'stationary source', 'owner or operator', and 'existing' source shall have the same meaning as such terms have under section 111(a).

"(5) The term 'electric utility steam generating unit' means any fossil fuel fired steam electric generating unit that is constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than twenty-five megawatts electrical output to any utility power distribution system for sale. Any steam supplied to a steam distribution system for the purpose of providing steam to a steam-electric generator that would produce electrical energy for sale is also considered in determining the electrical energy output capacity of the facility.

“(b) Hazardous Air Pollutant List.—

“(1) The Congress establishes for purposes of this section a list of hazardous air pollutants as follows:

CAS number	Chemical name
75070	Acetaldehyde
60355	Acetamide
75058	Acetonitrile
98862	Acetophenone
53963	2-Acetylaminofluorine
107028	Acrolein
79061	Acrylamide
79107	Acrylic acid
107131	Acrylonitrile
107051	Allyl chloride
92671	4-Aminobiphenyl
7664417	Ammonia
62533	Aniline
90040	o-Anisidine
1332214	Asbestos
71432	Benzene (including benzene from gasoline)
92875	Benzidine
98077	Benzotrichloride
100447	Benzyl chloride
92524	Biphenyl
117817	Bis(2-ethylhexyl)phthalate (DEHP)
542881	Bis(chloromethyl)ether
75252	Bromoform
106990	1,3-Butadiene
156627	Calcium cyanamide
105602	Caprolactam
133062	Captan
63252	Carbaryl
75150	Carbon disulfide
56235	Carbon tetrachloride
463581	Carbonyl sulfide
120809	Catechol
133904	Chloramben
57749	Chlordane

CAS number	Chemical name
7782505	Chlorine
79118	Chloroacetic acid
532274	2-Chloroacetophenone
108907	Chlorobenzene
510156	Chlorobenzilate
67663	Chloroform
107302	Chloromethyl methyl ether
126998	Chloroprene
1319773	Cresols/Cresylic acid (isomers and mixture)
95487	Cresols/Cresylic acid (isomers and mixture)
108394	Cresols/Cresylic acid (isomers and mixture)
106445	Cresols/Cresylic acid (isomers and mixture)
98828	Cumene
94757	2,4-D, salts and esters
3547044	DDE
334883	Diazomethane
132649	Dibenzofurans
96128	1,2-Dibromo-3-chloropropane
84742	Dibutylphthalate
106467	1,4-Dichlorobenzene(p)
91941	3,3-Dichlorobenzidene
111444	Dichloroethyl ether (Bis(2-chloroethyl)ether)
542756	1,3-Dichloropropene
62737	Dichlorvos
111422	Diethanolamine
121697	N,N-Diethyl aniline (N,N-Dimethylaniline)
64675	Diethyl sulfate
119904	3,3′-Dimethoxybenzidine
60117	Dimethyl aminoazobenzene
119937	3,3′-Dimethyl benzidine
79447	Dimethyl carbamoyl chloride
68122	Dimethyl formamide
57147	1,1-Dimethyl hydrazine
131113	Dimethyl phthalate
77781	Dimethyl sulfate
534521	4,6-Dinitro-o-cresol, and salts
51285	2,4-Dinitrophenol
121142	2,4-Dinitrotoluene
123911	1,4-Dioxane (1,4-Diethyleneoxide)
122667	1,2-Diphenylhydrazine
106898	Epichlorohydrin (1-Chloro-2,3-epoxypropane)
106887	1,2-Epoxybutane
140885	Ethyl acrylate
100414	Ethyl benzene
51796	Ethyl carbamate (Urethane)
75003	Ethyl chloride (Chloroethane)
106934	Ethylene dibromide (Dibromoethane)
107062	Ethylene dichloride (1,2-Dichloroethane)
107211	Ethylene glycol
151564	Ethylene imine (Aziridine)
75218	Ethylene oxide
96457	Ethylene thiourea

CAS number	Chemical name
75343	Ethylidene dichloride (1,1-Dichloroethane)
50000	Formaldehyde
76448	Heptachlor
118741	Hexachlorobenzene
87683	Hexachlorobutadiene
77474	Hexachlorocyclopentadiene
67721	Hexachloroethane
822060	Hexamethylene-1,6-diisocyanate
680319	Hexamethylphosphoramide
110543	Hexane
302012	Hydrazine
7647010	Hydrochloric acid
7664393	Hydrogen fluoride (Hydrofluoric acid)
7783064	Hydrogen sulfide
123319	Hydroquinone
78591	Isophorone
58899	Lindane (all isomers)
108316	Maleic anhydride
67561	Methanol
72435	Methoxychlor
74839	Methyl bromide (Bromomethane)
74873	Methyl chloride (Chloromethane)
71556	Methyl chloroform (1,1,1-Trichloroethane)
78933	Methyl ethyl ketone (2-Butanone)
60344	Methyl hydrazine
74884	Methyl iodide (Iodomethane)
108101	Methyl isobutyl ketone (Hexone)
624839	Methyl isocyanate
80626	Methyl methacrylate
1634044	Methyl tert butyl ether
101144	4,4-Methylene bis(2-chloroaniline)
75092	Methylene chloride (Dichloromethane)
101688	Methylene diphenyl diisocyanate (MDI)
101779	4,4′-Methylenedianiline
91203	Naphthalene
98953	Nitrobenzene
92933	4-Nitrobiphenyl
100027	4-Nitrophenol
79469	2-Nitropropane
684935	N-Nitroso-N-methylurea
62759	N-Nitrosodimethylamine
59892	N-Nitrosomorpholine
56382	Parathion
82688	Pentachloronitrobenzene (Quintobenzene)
87865	Pentachlorophenol
108952	Phenol
106503	p-Phenylenediamine
75445	Phosgene
7803512	Phosphine
7723140	Phosphorus

CAS Number	Chemical name
85449	Phthalic anhydride
1336363	Polychlorinated biphenyls (Aroclors)
1120714	1,3-Propane sultone
57578	beta-Propiolactone
123386	Propionaldehyde
114261	Propoxur (Baygon)
78875	Propylene dichloride (1,2-Dichloropropane)
75569	Propylene oxide
75558	1,2-Propylenimine (2-Methyl aziridine)
91255	Quinoline
106514	Quinone
100425	Styrene
96093	Styrene oxide
1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin
79345	1,1,2,2-Tetrachloroethane
127184	Tetrachloroethylene (Perchloroethylene)
7550450	Titanium tetrachloride
108883	Toluene
95807	2,4-Toluene diamine
584849	2,4-Toluene diisocyanate
95534	o-Toluidine
8001352	Toxaphene (chlorinated camphene)
120821	1,2,4-Trichlorobenzene
79005	1,1,2-Trichloroethane
79016	Trichloroethylene
95954	2,4,5-Trichlorophenol
88062	2,4,6-Trichlorophenol
12[illegible]448	Triethylamine
1582098	Trifluralin
540841	2,2,4-Trimethylpentane
108054	Vinyl acetate
593602	Vinyl bromide
75014	Vinyl chloride
75354	Vinylidene chloride (1,1-Dichloroethylene)
1330207	Xylenes (isomers and mixture)
95476	Xylenes (isomers and mixture)
108383	Xylenes (isomers and mixture)
106423	Xylenes (isomers and mixture)
0	Antimony Compounds
0	Arsenic Compounds (inorganic including arsine)
0	Beryllium Compounds
0	Cadmium Compounds
0	Chromium Compounds
0	Cobalt Compounds
0	Coke Oven Emissions
0	Cyanide Compounds [1]
0	Glycol ethers [2]
0	Lead Compounds
0	Manganese Compounds
0	Mercury Compounds
0	Mineral fibers [3]
0	Nickel Compounds

CAS Number	Chemical name
0	Polycylic Organic Matter [4]
0	Radionuclides (including radon) [5]
0	Selenium Compounds

NOTE: For all listings above which contain the word "compounds" and for glycol ethers, the following applies: Unless otherwise specified, these listings are defined as including any unique chemical substance that contains the named chemical (i.e., antimony, arsenic, etc.) as part of that chemical's infrastructure.

[1] $X^{+}CN$ where X = H^{+}' or any other group where a formal dissociation may occur. For example KCN or $Ca(CN)_2$.

[2] Includes mono- and di- ethers of ethylene glycol, diethylene glycol, and triethylene glycol R-$(OCH2CH2)_n$-OR' where

n = 1, 2, or 3
R = alkyl or aryl groups
R' = R, H, or groups which, when removed, yield glycol ethers with the structure: R-$(OCH2CH)_n$-OH

Polymers are excluded from the glycol category.

[3] Includes glass microfibers, glass wool fibers, rock wool fibers, and slag wool fibers, each characterized as "respirable" (fiber diameter less than 3.5 micrometers) and possessing an aspect ratio (fiber length divided by fiber diameter) greater than 3.

[4] Includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100°C.

[5] A type of atom which spontaneously undergoes radioactive decay.

"(2) IN GENERAL.—The Administrator may add or delete a substance from the list under this subsection.

"(A) ADDITIONS.—A substance may be added if the Administrator determines in his judgment that the substance is an air pollutant and that there is sufficient evidence to establish that the pollutant is known to cause or can reasonably be anticipated to cause in humans any one of the following:

"(i) cancer or developmental effects, or

"(ii) serious or irreversible—

"(I) reproductive dysfunctions, or

"(II) neurological disorders, or

"(III) heritable gene mutations, or

"(IV) other chronic health effects, or

"(V) adverse acute human health effects.

"(B) DELETIONS.—The Administrator may delete a pollutant if he determines there is not sufficient evidence to establish any of the criteria described in paragraph (A).

"(C) FURTHER INFORMATION.—If the Administrator determines that information on the health effects of a substance is not sufficient to make a determination required by this paragraph the Administrator may use any authority available to him to acquire such information.

"(3) PETITIONS.—Any person may petition the Administrator to modify the list by adding or deleting a substance. Within eighteen months after receipt of a petition the Administrator shall either grant or deny the petition by publishing a written explanation of the reasons for his decision. Any air pollutant which is listed under section 108(a) may not be added to the list under this section.

"(c) SOURCE CATEGORY LIST.—

"(1) Not later than twelve months after the date of enactment, the Administrator shall publish, and may from time to time revise in response to public comment or new information, a list of all categories and subcategories of major sources and area sources designated under paragraph (4) of the air pollutants listed pursuant to subsection (b).

"(2) For the categories and subcategories he designates, he shall establish emission standards under subsection (d), according to the schedule in subsection (e).

"(3) The Administrator may decide not to list a source category or subcategory because its emissions into the air are, in his judgment, already adequately controlled under this Act or any other Federal statute or regulation.

"(4) The Administrator may designate a category or subcategory of area sources that he finds, based on actual or estimated aggregate emissions of a listed pollutant or pollutants in an area, warrants regulation under this section.

"(5) The Administrator may, in his discretion, list any category or subcategory previously regulated under this section as in effect prior to the date of enactment.

"(6) The Administrator may withdraw a source category or subcategory from the list published under this subsection if he finds, in his discretion, that the sources in the category present a negligible risk to public health.

"(d) Maximum Achievable Control Technology Emission Standards.—

"(1) The Administrator shall promulgate regulations establishing emission standards for each category or subcategory of major sources and area sources in accordance with the schedule provided in subsection (e). The Administrator may distinguish among classes, types and sizes of sources within a category or subcategory in establishing such standards. The Administrator may set standards for emissions of radionuclides from a category or subcategory separately from regulating other listed pollutants emitted by that category or subcategory.

"(2) Emisson standards promulgated under this subsection shall be applicable to new and existing major sources and area sources in each category or subcategory, and shall require the maximum degree of reduction in emissions of the air pollutants subject to this section (including a prohibition of such emissions, if achievable) that the Administrator, taking into consideration the cost of achieving such emission reduction, and any nonair quality and other air quality-related health and environmental impacts, and energy requirements, determines is achievable through application of measures, processes, methods, systems or techniques including, but not limited to, measures which—

"(A) reduce the volume of, or eliminate emissions of such pollutants through process changes, substitution of materials or other modifications such as reuse or recycling; or

"(B) enclose systems or processes to eliminate emissions; or

"(C) collect, capture or treat such pollutants when released from a process, stack, storage or fugitive emissions point; or

"(D) are design, equipment, work practice or operational methods, or radiation dose standards; or

"(E) requirements for operator training or certification; or

"(F) are a combination of the above.

If the Administrator finds that it is not feasible to prescribe or enforce an emission standard, he may instead issue regulalations requiring any of the measures identified in subparagraphs (D) through (E) of this paragraph, or any combination of such measures.

"(3) The maximum degree of reduction in emissions that is deemed achievable for new sources in a category or subcategory shall not be less stringent than the emission control that is achieved in practice by the best controlled similar source, as determined by the Administrator. Emissions standards promulgated under this subsection for existing sources of a category or subcategory may be less stringent than standards for new sources in the same category or subcategory but shall be at least as stringent as the emissions controls achieved in practice by the best controlled similar sources. These determinations, for new and existing sources, shall take into account energy, environmental, economic impacts and other costs, as well as any other factors the Administrator deems appropriate. If the Administrator finds that no similar source employs controls reflecting the maximum available control technology, he may establish emissions standards or regulations meeting the requirements of this section without regard to the performance of similar sources. Emission standards under this section for radionuclides shall be set based upon radiation dose.

"(4) Emission standards promulgated under this subsection shall be effective upon promulgation.

"(5) In promulgating emission standards for a source category under this subsection, the Administrator shall prescribe a date for compliance with the standards for existing sources. In no event shall such date be later than three years after promulgation of the standards.

"(6) With respect only to categories and subcategories of area sources listed pursuant to subsection (c), the Administrator may, in lieu of the authorities provided in paragraph (2) and subsection (f), elect to promulgate standards or requirements applicable to sources in such categories or subcategories which provide for the use of generally available control technologies or management practices by such sources to reduce emissions of listed air pollutants.

"(7) The Administrator shall from time to time review, and, if appropriate, revise emissions standards promulgated under this subsection.

"(e) SCHEDULE FOR STANDARDS.—

"(1) The Administrator shall promulgate standards for categories and subcategories listed under subsection (c) of this section according to the following schedule:

"(A) Emission standards for not less than ten categories or subcategories shall be promulgated not later than two years after the date of enactment.

"(B) Emission standards for 25 per centum of the listed categories or subcategories shall be promulgated not later than four years after the date of enactment.

"(C) Emission standards for an additional 25 per centum of the listed categories and subcategories shall be promulgated not later than seven years after such date.

"(D) For the remaining categories or subcategories listed under subsection (c) for which regulatory action has not been initiated, the Administrator shall, within seven years after enactment, review and designate the additional categories and subcategories he finds, in his discretion, warrant regulation under this section. Emission standards for the designated categories and subcategories shall be promulgated not later than ten years after enactment.

"(2) In determining priorities for promulgating standards under subsection (d), the Administrator shall consider—

"(A) the quantity and location of emissions or reasonably anticipated emissions of air pollutants subject to this section that each category or subcategory will emit;

"(B) the known or anticipated adverse effects of such pollutants on public health; and

"(C) the efficiency of grouping categories or subcategories according to the pollutants emitted, or the processes or technologies used.

"(f) UNREASONABLE RISK EVALUATION.—

"(1) Within seven years after promulgation of emission standards for a category of sources pursuant to subsection (d), the Administrator shall evaluate the risks to the public health remaining after application of such standards.

"(2) If the Administrator finds after such evaluation, that the category or subcategory, or portion thereof, after application of the prescribed standards, presents an unreasonable risk to public health taking into account the cost and technical feasibility as well as the health risks of such standards, he shall, within two years after completion of such evaluation, promulgate standards to protect adequately against such risk.

"(3) Any standards promulgated under this subsection shall be effective upon the date of promulgation.

"(4) In promulgating emission standards for a source category under this subsection, the Administrator shall prescribe a date for compliance with the standards by existing sources. In no event shall such date be later than six years after promulgation of the standards.

"(g) ALTERNATIVE EMISSIONS LIMITATIONS.—

"(1) Notwithstanding the requirements of subsection (d), a State with a program approved under title IV, may issue a permit that authorizes—

"(A) a major source to comply with alternative emission limitations in lieu of standards under this section, if the owner or operator presents evidence sufficient to demonstrate that emissions from the source in compliance with such limitations present a negligible risk to public health under criteria issued by the Administrator under subparagraph (F);

"(B)(i) any existing source, for which the owner or operator demonstrates that it has achieved a voluntary reduction of 90 per centum or more in emissions of listed pollutants (95 per centum or more in the case of listed particulate pollutants) from the source within five years prior to proposal of an applicable standard promulgated pursuant to subsection (d), to meet emission limitations based on such voluntary reduction in lieu of such standard. The reduction shall be determined with respect to verifiable and actual emissions on an annual average basis and in a base year not earlier than five years prior to proposal (but in any case no earlier than calendar year 1987), unless emissions in the base year are artifically or substantially greater than emissions in other years prior to implementation of emissions reduction measures;

"(ii) any existing source to extend its compliance date for a standard under subsection (d) for five years if the permit requires the source, within five years prior to proposal of the standard under subsection (d), to achieve a level of emission rate or emission reduction which complies (or would comply if the source is not subject to such standards) with the most stringent of any relevant section 111 standard, best available control technology determination (as defined in section 169(3)), or reasonably available control technology determination (as approved by the Administrator) which is applicable to the source category and prevailing at the time the reduction is achieved;

"(iii) any existing source to extend its compliance date for a standard under subsection (d) for five years if the source, within five years prior to proposal of the standard under subsection (d), has achieved a level of emission rate or emission reduction which complies (or would comply if the source is not subject to such standard) with the lowest achievable emissions rate (as defined by section 171) which is applicable to the source category and prevailing at the time the reduction is achieved;

"(iv) the Administrator shall review emissions from sources subject to emissions limitations under this subparagraph according to the provisions of subsection (f) at the same time that other sources in the category or subcategory are reviewed;

"(C) For purposes of this paragraph, the term 'voluntary' means not otherwise required by a Federal, State, or local law or regulation;

"(D) The Administrator shall promulgate regulations to carry out the provisions of this paragraph as expeditiously as practicable, but not later than twenty-four months after the date of enactment.

"(E) Rules published pursuant to this paragraph may identify categories or subcategories of sources listed under subsection (c) for which no alternative emission limitations may be established, including categories or subcategories of area sources for which emission standards are promulgated to control combined emissions from sources, rather than emissions of individual sources.

"(F) The Administrator shall also publish regulations establishing methods for assessing the significance of public health risks and methods for evaluating evidence presented by an owner or operator applying for alternative emission limitations under this subsection. Any modeling demonstration performed to support a showing of negligible risk shall comply with such regulations. Any stack height credit used in a modeling demonstration shall be based on the lesser of actual stack height of the source as it existed on January 1, 1989, or the stack height credit as provided in regulations issued by the Administrator.

"(2) Any State with a program approved under title IV may issue a permit that grants an extension permitting an existing source up to two additional years to comply with standards under subsection (d), if such additional period is necessary for the installation of controls. An additional extension of up to three years may be added if the five-year compliance time is insufficient to dry and cover mining waste in order to reduce emissions of any pollutant listed under subsection (b).

"(3) No alternative emission limitation under this paragraph shall take effect until it is approved by the Administrator.

"(4) If the State in which a source is located does not have a program approved under title IV, the Administrator may grant any extensions authorized under this subsection for such source.

"(h) PRE-CONSTRUCTION AND OPERATING REQUIREMENTS.—After the effective date of any emission standard under paragraph (d)(4) or (f)(3) of this section, or an alternative emission limitation under subsection (g)—

"(1) no person may construct any new major source subject to such emission standard, limitation or regulation under this section unless the Administrator, or a State with a permit program approved under title IV, determines that such source, if properly constructed and operated, will comply with the standard or limitation; and

"(2) no person may operate any new or existing source subject to an emission standard or limitation except in compliance with such standard or limitation and any applicable schedule under paragraph (d)(5) or (f)(4).

"(i) TECHNICAL ASSISTANCE.—The Administrator shall establish and maintain an air toxics clearinghouse and centers to provide technical information and assistance to State and local agencies on control technology, risk analysis, ambient monitoring and modeling, and emissions measurement and monitoring. The Administrator may conduct research on methods for preventing, measuring, and controlling emissions and evaluating associated health and ecological risks.

"(j) PRESIDENTIAL EXEMPTION.—The President may exempt any source from compliance with standards or requirements under this section for a period of not more than two years if the President determines it to be in the national security interests of the United States to do so. An exemption under this paragraph may be extended for one or more additional periods, each period not to exceed two years. The President shall make a report to Congress with respect to each exemption (or extension thereof) made under this paragraph.

"(k) SAVINGS PROVISION.—

(1) Any standards promulgated under this section as in effect prior to the enactment shall remain in force, as promulgated, unless modified in accordance

with this section. If a timely petition for review of any such standard under section 307 is pending on such date of enactment, the standard shall be upheld if it complies with this section as in effect prior to that date. If any such standard is remanded to the Administrator, he may in his discretion apply either the requirements of this section, or those of this section as in effect prior to the date of enactment.

"(2) Notwithstanding section 307 of this Act, no action of the Administrator adding a pollutant to the list under subsection (b) of this section, listing a source category under subsection (c), designating a category of area sources under paragraph (c)(4), or determining that a category of sources presents a significant risk of serious or widespread adverse effects on public health under paragraph (f)(2), shall be final agency action subject to judicial review, except that any such listing decision may be reviewed, if otherwise final, when the Administrator issues emission standards for such pollutant or category.

"(l) APPROPRIATIONS.—There are authorized to be appropriated such amounts as are necessary to carry out the requirements of this section.

"(m) ELECTRIC UTILITIES.—The Administrator shall perform a study of the hazards to public health reasonably anticipated to occur as a result of emissions by electric utility steam generating units of pollutants listed under subsection (b) after imposition of the requirements of this Act. The Administrator shall report the results of this study to the Congress within three years after the date of enactment. The Administrator shall develop and describe in his report to Congress alternative control strategies for emissions which may warrant regulation under this section. The Administrator may not regulate electric utility steam generating units under this section unless he finds such regulation is appropriate and necessary after considering the results of the study required in this subsection.".

TITLE IV—PERMITS

SEC. 401. PERMITS.

The Clean Air Act is amended by adding new title IV, to read as follows:

"TITLE IV—PERMITS

"DEFINITIONS

"SEC. 401. As used in this title:

"(1) The term 'affected source' shall have the meaning given in title V.

"(2) The term 'major source' means any stationary source (or any group of stationary sources located within a contiguous area and under common control) that—

"(A) is a major source as defined under section 112 of this Act; or

"(B) is a major stationary source as defined in section 302.

"(3) For sources subject to standards issued under section 112 of this Act, the terms 'new source', 'stationary source', and 'area source' shall have the meaning given in that section.

"(4) For sources subject to standards issued under section 111 of this Act, the terms 'new source', 'modification', 'existing source', 'stationary source', and 'owner or operator' shall have the meaning given in that section.

"(5) The term 'schedule of compliance' means a schedule of remedial measures including an enforceable sequence of actions or operations leading to compliance with an applicable implementation plan, emission standard, emission limitation or emission prohibition.

"(6) The term 'permitting authority' means the Administrator, or the air pollution control agency authorized by the Administrator to carry out a permit program under this title.

"PERMIT PROGRAMS

"SEC. 402. (a) After the effective date of any permit program approved or promulgated under this title, it shall be unlawful for any person to violate any requirement of a permit issued under this title, or to operate a major source, any other source (including an area source) subject to standards or regulations under sections 111 or 112, any source required to have a permit under parts C or D of this Act, or any other source designated by regulations promulgated by the Administrator, except in compliance with a permit issued by a permitting authority under this title. Nothing in this subsection shall be construed to alter the requirements of section 165, 172, and 173 regarding the requirement that a permit be obtained prior to construction. The Administrator may, in his discretion, promulgate regulations to exempt one or more source categories from the requirements of this subsection if he finds that such an exemption would be consistent with the purposes of this Act.

"(b) The Administrator shall promulgate within twelve months after the date of enactment of this title regulations establishing the minimum elements of a permit program to be administered by any air pollution control agency. These elements shall include:

"(1) Requirements for permit applications, including a standard application form.

"(2) Monitoring and reporting requirements.

"(3)(A) A requirement under State law that the owner or operator of each source subject to the requirement to obtain a permit under this title pay an annual fee, or the equivalent over some other period, sufficient to cover all direct and indirect costs of developing and administering the permit program, including, but not limited to, the reasonable costs of—

"(i) reviewing and acting upon any application for such a permit,

"(ii) if the owner or operator receives a permit for such source, whether before or after the date of enactment of this section, implementing and enforcing the terms and conditions of any such permit (not including any court costs or other costs associated with any enforcement action),

"(iii) emissions and ambient monitoring,

"(iv) preparing generally applicable regulations or guidance,

"(v) modeling, analyses, and demonstrations, and

"(vi) preparing inventories and tracking emissions.

"(B) The total amount of fees collected by the permitting authority shall conform to the following requirements:

"(i) The Administrator shall not approve a program as meeting the requirements of this paragraph unless the State demonstrates that, except as otherwise provided in subparagraphs (ii) through (v) of this subparagraph, the program will result in the collection, in the aggregate, from all sources subject to subparagraph (A), of an amount not less than $25 per ton of each regulated pollutant, or such other amount as the Administrator may determine adequately reflects the costs of the program.

"(ii) As used in this subparagraph, the term 'regulated pollutant' shall mean (I) volatile organic compounds; (II) each pollutant regulated under section 111 or 112; and (III) each pollutant for which a national primary ambient air quality standard has been promulgated (except that carbon monoxide shall be excluded from this reference).

"(iii) In determining the amount under clause (i), the permitting authority is not required to include any amount of regulated pollutant emitted by any source in excess of four thousand tons per year of that regulated pollutant.

"(iv) The requirements of clause (i) shall not apply if the permitting authority demonstrates that collecting an amount less than the amount specified under clause (i) will meet the requirements of subparagraph (A).

"(v) The fee calculated under clause (i) shall be increased in each year beginning after the year of enactment of this section by the percentage, if any, by which the Consumer Price Index for the most recent calendar year ending before the beginning of such year exceeds the Consumer Price Index for the calendar year 1989. For purposes of this clause.

"(I) the Consumer Price Index for any calendar year is the average of the Consumer Price Index for all-urban consumers published by the Department of Labor, as of the close of the twelve-month period ending on August 31 of each calendar year, and

"(II) the revision of the Consumer Price Index which is most consistent with the Consumer Price Index for calendar year 1989 shall be used.

"(C)(i) If the Administrator determines, under section 402(d), that the fee provisions of the operating permit program do not meet the requirements of this paragraph, or if the Administrator makes a determination, under section 402(i), that the permitting authority is not adequately administering or enforcing an approved fee program, the Administrator may, in addition to taking any other action authorized under this title, collect reasonable fees from the sources identified under subparagraph (A) without regard to the requirements of paragraph (B).

"(ii) Any source that fails to pay fees lawfully imposed by the Administrator under this subparagraph shall pay a penalty of 50 per centum of the fee amount, plus interest on the fee amount computed in accordance with section 6621(a)(2) of title 26, of the United States Code (relating to computation of interest on underpayment of federal taxes).

"(iii) Any fees, penalties, and interest collected under this subparagraph shall be deposited in a special fund in the United States Treasury for licensing and other services, which thereafter shall be available for appropriation, to remain available until expended, subject to appropriation, to carry out the Agency's activities for which the fees were collected.

Any fee required to be collected by a State or interstate agency under this subsection shall be utilized to support the air pollution control program of such State or interstate agency.

"(4) Requirements for adequate personnel and funding to administer the program.

"(5) A requirement that the permitting authority have adequate authority to—

"(A) issue permits that apply, and assure compliance by all sources required to have a permit under this title with each applicable standard, regulation or requirement under this Act;

"(B) issue permits for a fixed term, not to exceed five years;

"(C) assure that permits incorporate emission limitations and other requirements in an applicable implementation plan;

"(D) terminate, modify, or revoke and reissue permits for cause;

"(E) enforce permits, permit fee requirements, and the requirement to obtain a permit, including authority to recover civil penalties in an amount not less than $10,000 per day for each violation, and appropriate criminal penalties; and

"(F) ensure that no permit will be issued if the Administrator timely objects to its issuance under section 405.

"(6) Adequate procedures for public notice, including offering an opportunity for public comment and a hearing, on any permit application.

"(7) Authority to make available to the public any permit application, compliance plan, permit, and monitoring or compliance report under section 403(e).

"(c) A single permit may be issued for a facility with multiple sources.

"(d) Not later than three years after the enactment of this title, the Governor of each State shall develop and submit to the Administrator a permit program under State law or under an interstate compact meeting the requirements of this title. In addition, the Governor shall submit a legal opinion from the attorney general (or the attorney for those State air pollution control agencies that have independent legal counsel), or from the chief legal officer of an interstate agency, that the laws of the State, locality, or the interstate compact provide adequate authority to carry out the program. Not later than one year after receiving a program, and after notice and opportunity for public comment, the Administrator shall approve or disapprove such program, in whole or in part. The Administrator may approve a program to the extent that the program meets the requirements of this Act, including the regulations issued under subsection (b) of this section. If the program is disapproved, in whole or in part, the Administrator shall notify the Governor of any revisions or modifications necessary to obtain approval. The Governor shall revise and resubmit the program for review under this section within one hundred and eighty days after receiving notification. If the Governor fails within such period to resubmit an approvable program, the Administrator:

"(1) shall, to the extent the permit program would implement an applicable implementation plan, withhold final action on plan revisions affecting one, or a small group of, major sources; and

"(2) may in his discretion take either or both of the following actions:

"(A) apply any of the sanctions specified in section 179(b) of this Act other than the sanction specified in section 179(b)(2); or

"(B) promulgate a program, or partial program, under this title.

"(e) The Administrator shall suspend the issuance of permits promptly upon publication of notice of approval of a permit program under this section, but may in such notice retain jurisdiction over permits that have been federally issued, but for which the administrative or judicial review process is not complete. The Administrator shall continue to administer and enforce federally issued permits under this title until they are replaced by a permit issued by a permitting program. Nothing in this provision should be construed to limit the Administrator's ability to enforce permits issued by a State.

"(f) The Governor of a State may submit, and the Administrator may approve, a partial permit program. No partial permit program shall be approved unless, at a minimum, it applies, and ensures compliance with, this title and—

"(1) all requirements established under title V applicable to 'affected sources';

"(2) all requirements established under section 112 applicable to 'major sources', 'area sources,' and 'new sources'; or

"(3) all requirements of title I (other than section 112) applicable to sources required to have a permit under this title.

Approval of a partial program shall not relieve the State of its obligation to submit a complete program, nor from the application of any sanctions under this Act for failure to submit an approvable permit program.

"(g) INTERIM APPROVAL.—If a program (including a partial permit program) submitted under this title substantially meets the requirements of this title, but is not fully approvable, the Administrator may by rule grant the program interim approval. In the notice of final rulemaking, the Administrator shall specify the changes that must be made before the program can receive full approval. An interim approval under this subsection shall expire on a date set by the Administrator not later than two years after such approval, and may not be renewed.

"(h) Effective Date.—The effective date of a permit program, or partial or interim program, approved under this title, shall be the effective date of approval by the Administrator.

"(i) Whenever the Administrator makes a preliminary determination that a permitting authority is not adquately administering and enforcing a program, or portion thereof, in accordance with the requirements of this title, he shall notify the permitting authority of such determination and the reasons therefor. If the permitting authority fails to take action to assure adequate administration and enforcement, the Administrator may in his discretion, but not before ninety days after issuing such notice, take one or more of the following actions:

"(1) withdraw approval of the program or portion by rule;

"(2) propose to apply any of the sanctions specified in section 179(b) of this Act other than the sanction specified in section 179(b)(2); or

"(3) promulgate a program, or portion of a program, under this title.

"PERMIT APPLICATIONS

"SEC. 403. (a) Any source specified in section 402(a) shall become subject to a permit program, and required to have a permit, on the later of the following dates:

"(1) the effective date of a permit program or partial or interim permit program applicable to the source; or

"(2) the date such source becomes subject to section 402(a).

"(b) The regulations required by section 402(b)(1) shall include a requirement that the owner or operator submit with the permit application a compliance plan describing how the source will comply with all applicable requirements under this Act. The compliance plan shall include a schedule of compliance, and a schedule under which the owner or operator will submit progress reports to the permitting authority no less frequently than every six months. The regulations shall further require any owner or operator submitting a compliance plan to periodically certify that the facility is in compliance with any applicable requirements under this Act, and to promptly report any violations of such requirements to the permitting authority.

"(c) The owner or operator of any source required to have a permit shall, not later than six months after the date on which the source becomes subject to a permit program approved or promulgated under this title, or such earlier date as the permitting authority may establish, submit to the permitting authority a compliance plan and an application for a permit signed by a responsible corporate official, who shall certify the accuracy of the information submitted.

"(d) Except for sources required to have a permit prior to construction under sections 165, 172, or 173, if an owner or operator has submitted a timely and complete application for a permit required by this title, but final action has not been taken on the application, the source's failure to have a permit shall not be a violation of this Act, unless the delay in final action was due to the failure of the applicant timely to submit information required or requested to process the application. No source required to have a permit under this title shall be in violation of section 402(a) before the date on which the source is required to submit an application under subsection (c) of this section.

"(e) A copy of each permit application, compliance plan, emissions or compliance monitoring report, certification, and each permit issued under this title, shall be available to the public. If an applicant is required to submit information entitled to protection from disclosure under section 114(c) of this Act, the applicant may submit such information separately from the application. The requirements of section 114(c) shall apply to such information. The contents of a permit or of a compliance plan shall not be entitled to protection under section 114(c).

"PERMIT REQUIREMENTS AND CONDITIONS

"SEC. 404. Each permit issued under this title shall include emission limitations and standards, a schedule of compliance, and such other conditions as are necessary to assure compliance with applicable requirements.

"(b) The Administrator may by rule prescribe procedures and methods for determining compliance and for monitoring and analysis of pollutants regulated under this Act.

"(c) Each permit issued under this title shall set forth inspection, entry, monitoring, compliance certification, and reporting requirements to assure compliance with the permit terms and conditions. Such monitoring and reporting requirements shall conform to any applicable regulations under subsection (b) of this section. Any report required to be submitted by a permit under this title shall be signed by a responsible corporate official, who shall certify its accuracy.

"(d) The permitting authority may, after notice and opportunity for public hearing, issue a general permit covering numerous similar sources. Any general permit shall comply with all requirements applicable to permits under this title. No source covered by a general permit shall thereby be relieved from the obligation to file an application under section 403.

"(e) TEMPORARY SOURCES.—The permitting authority may issue a single permit to an owner or operator authorizing emissions from similar operations at multiple temporary locations. No such permit shall be issued unless it includes conditions that will assure compliance with all the requirements of this Act at all authorized locations, including, but not limited to, ambient standards and compliance with any applicable increment or visibility requirements under part C of title I. Any such permit shall in addition require the owner or operator to notify the permitting authority in advance of each change in location. The permitting authority may require a separate permit fee for operations at each location.

"(f)(1) A permit may not be reissued or modified to contain emission limitations or other requirements that are less stringent than the comparable emission limitations or requirements in the previous permit or that applied to the source under an applicable implementation plan.

"(2) Notwithstanding paragraph (1) of this subsection, a permit may be reissued or modified, in accordance with section 405 of this title, to contain a less stringent emission limitation or other requirement (other than standards established under section 111 or 112) if the applicant shows that the revised emission limitation or requirement is consistent with any demonstration of attainment and any progress requirement in an approved implementation plan, the requirements of part C or section 173 of the Act, and will not otherwise interfere with attainment of the ambient air quality standards, progress requirements, and any other requirements of this Act and that—

"(A) the increased emissions authorized by the permit are compensated for by emissions reductions from another permitted facility, as determined under rules prescribed by the Administrator;

"(B) material and substantial alterations or additions to the permitted source occurred after permit issuance;

"(C) information is available that was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and that, if known, would have justified the application of a less stringent emission limitation or requirement at that time;

"(D) technical mistakes or mistaken interpretations of law were made in issuing the permit; or

"(E) the permittee demonstrates, in accordance with procedures prescribed by the Administrator, that it has installed the controls required to meet the emission limitations and requirements in the permit and has properly constructed and tested the facility, but has nevertheless been unable to achieve the emission limitations specified in the permit, in which case the limitations in the revised, reissued, or modified permit may reflect the level of emission control actually achieved.

"(3) No permit may be reissued to contain emission standards less stringent than those established under sections 111 or 112 unless the applicable standard has been revised, or, for a standard under section 112, an alternative emission limitation has been established under section 112(g).

"(g) Compliance with a permit issued under this title shall be deemed compliance with sections 110, 111, 112, 165, 169A, 172, 173, and 402 of this Act and (except as provided by the Administrator by rule) any requirement under title V. The preceding sentence shall not apply to a standard issued under section 112(f). Compliance with a permit issued under a partial program under section 402(f) shall be deemed compliance only with those requirements for which the program was approved.

"NOTIFICATION TO ADMINISTRATOR AND CONTIGUOUS STATES

"SEC. 405. (a)(1) Each permitting authority shall transmit to the Administrator a copy of each permit application, including any compliance plan and any application for alternative emission limitations under section 112(g), or for a permit modification, submitted under this title, and shall provide notice, in accordance with regulations promulgated by the Administrator, of every action related to the consideration of the application, including each permit proposed to be issued by the authority.

"(2) The permitting authority shall notify all States contiguous to the State in which the emission originates of each permit application, and each draft permit or proposed permit forwarded to the Administrator under this section, and shall provide an opportunity for such States to submit written recommendations respecting the issuance of the permit and its terms and conditions. If any part of those recommendations are not accepted by the permitting authority, such authority shall notify the State submitting the recommendations and the Administrator in writing of its failure to accept those recommendations and the reasons therefor.

"(b) No permit shall be issued if the Administrator (1) within ninety days after receipt of the proposed permit under subsection (a)(1) of this section, or (2) within ninety days after receiving notification under subsection (a)(2), objects in writing to its issuance as not in compliance with the requirements of this Act, including the requirements of section 110(d)(4)(A). The Administrator shall provide with the objection a statement of the reasons for the objection.

"(c) If the permitting authority fails within ninety days after the date of the objection, to submit a permit revised to meet the objection, the Administrator may issue or deny the permit in accordance with the requirements of this title. No objection shall be subject to judicial review until the Administrator takes final action to issue or deny a permit under this subsection.

"(d) WAIVER OF NOTIFICATION REQUIREMENT.—

"(1) The Administrator may waive the requirements of subsections (a) and (b) of this section at the time of approval of a permit program under this title for any category (including any class, type, or size within such category) of sources covered by the program.

"(2) The Administrator may by regulation establish categories of sources (including any class, type, or size within such category) to which the requirements of subsection (a) and (b) of this section shall not apply.

"(3) The Administrator may exclude from any waiver under this subsection notification under paragraph (a)(2). Any waiver granted under this subsection may be revoked or modified by the Administrator by rule.

"(e) REFUSAL OF PERMITTING AUTHORITY TO TERMINATE, MODIFY, OR REVOKE AND REISSUE.—If the Administrator finds that cause exists under section 402(b)(5)(D) to terminate, modify, or revoke and reissue a State permit under this title, he shall notify the permitting authority of his finding. The permitting authority shall, within ninety days after receipt of such notification, forward to the Administrator under this section a proposed determination of termination, modification, or revocation and reissuance, as appropriate. The Administrator may extend such ninety-day period for an additional ninety days if he finds that a new or revised permit application is necessary, or that the permitting authority must require the permittee to submit additional information. The Administrator may review such proposed determination under the provisions of subsections (a) and (b) of this section. If the permitting authority fails to submit the required proposed determination, or if the Administrator objects and the permitting authority fails to resolve the objection within the period prescribed in subsection (c) of this section, the Administrator may terminate, modify, or revoke and reissue the permit.

"RELATION TO OTHER AUTHORITY

"SEC. 406. (a) Nothing in this title shall prevent a State or interstate permitting authority from establishing additional permitting requirements not inconsistent with this Act.

"(b) ACID DEPOSITION PROGRAM.—Nothing in this title shall be construed to authorize the Administrator, or a State, to modify or revoke any allowance granted under title V, or to alter or amend any provision of title V.".

TITLE V—ACID DEPOSITION CONTROL

SEC. 501. ACID DEPOSITION CONTROL.

The Clean Air Act is amended by adding the following new title:

"TITLE V—ACID DEPOSITION CONTROL

"TABLE OF CONTENTS.

"Sec. 501. Findings and purposes.
"Sec. 502. Definitions.
"Sec. 503. Allowance program for existing units.
"Sec. 504. First phase sulfur dioxide emission reduction program.
"Sec. 505. Second phase sulfur dioxide emission reduction program.
"Sec. 506. Nitrogen oxides emission reduction program.
"Sec. 507. Permits and compliance plans.
"Sec. 508. Repowered sources.
"Sec. 509. Election for additional sources.
"Sec. 510. Excess emissions.
"Sec. 511. Monitoring, reporting, and recordkeeping requirements.
"Sec. 512. Compliance with other provisions.
"Sec. 513. Enforcement.
"Sec. 514. Report to Congress.
"Sec. 515. Clean coal technology regulatory incentives.

"FINDINGS AND PURPOSES

"SEC. 501. (a) FINDINGS.—The Congress finds that—

"(1) the presence of acidic compounds and their precursors in the atmosphere and in deposition from the atmosphere represents a threat to natural resources, ecosystems, materials, visibility, and public health;

"(2) the principal sources of the acidic compounds and their precursors in the atmosphere are emissions of sulfur and nitrogen oxides from the combustion of fossil fuels;

"(3) the problem of acid deposition is of national and international significance and cannot be addressed adequately without effective State-Federal cooperation;

"(4) strategies and technologies for the control of precursors to acid deposition exist now that are economically feasible, and improved methods are expected to become increasingly available over the next decade;

"(5) current and future generations of Americans will be adversely affected by delaying measures to remedy the problem;

"(6) reduction of total atmospheric loading of sulfur dioxide and nitrogen oxides will enhance protection of the public health and welfare and the environment; and

"(7) control measures to reduce precursor emissions from steam-electric generating units should be initiated without delay.

"(b) PURPOSES.—The purpose of this title is to reduce the adverse effects of acid deposition through reductions in annual emissions of sulfur dioxide of approximately ten million tons from 1980 emission levels, and of nitrogen oxides emissions of approximately two million tons relative to their levels in 2000, in the forty-eight contiguous States and the District of Columbia. It is also the purpose of this title to encourage energy conservation and pollution prevention as a long range strategy for reducing air pollution and other adverse impacts of energy production and use.

"DEFINITIONS

"SEC. 502. As used in this title—

"(a) The term 'affected source' means a source that includes one or more affected units.

"(b) The term 'affected unit' means a unit that is subject to emission limitation requirements under section 504, 505, 507, or 509.

"(c) The term 'allowance' means an authorization, issued by the Administrator under this title, to emit, during a specified calendar year, a ton of sulfur dioxide or nitrogen oxides.

"(d) The term 'baseline' means the annual quantity of fossil fuel consumed, measured in millions of British thermal units ('mmBtus'), by an affected unit, calculated as follows:

"(1) For each steam-electric unit in operation prior to January 1, 1985, the baseline shall be the annual average quantity of mmBtu consumed in fuel during calendar years 1985, 1986, and 1987, as recorded pursuant to Department of Energy Form 767. For any unit for which these forms were not filed, the baseline shall be the level specified for that unit in the 1985 National Acid Precipitation Assessment Program (NAPAP) Emissions Inventory, Version 2. The Administrator may exclude periods during which a unit is shutdown for a continuous period of four months or longer.

"(2) For each steam-electric unit that entered operation on or after January 1, 1985, the baseline shall be an annual average quantity of mmBtu, as calculated pursuant to a method which the Administrator shall, by regulation, prescribe;

"(3) For any other unit, the baseline shall be the annual average quantity, in mmBtu consumed in fuel by that unit, as established by regulation.

"(e) The term 'compliance plan' shall have the meaning given in section 403(b) of title IV.

"(f) The term 'continuous emission monitoring system' ('CEMS') means the equipment used to sample, measure, analyze, and provide on a continuous basis a permanent record of emissions and flow (expressed in pounds per million British thermal units (lbs./mmBtu) and pounds per hour (lbs./hr.)) or such other forms as the Administrator may prescribe by regulations under section 511(a) of this title.

"(g) The term 'existing unit' means a unit (including units subject to section 111) that is operating prior to the date of enactment. Any unit modified, reconstructed or repowered after the date of enactment shall continue to be an existing unit for purposes of this title.

"(h) The term 'new unit' means a unit that commences operation on or after the date of enactment.

"(i) The term 'permitting authority' shall have the meaning given in title IV.

"(j) The term 'repowering' means replacement of an existing pulverized coal boiler with one of the following clean coal technologies: Atmospheric or Pressurized Fluidized Bed Combustion, Integrated Gasification Combined Cycle, Magnetohydrodynamics, Direct and Indirect Coal-Fired Turbines, Integrated Gasification Fuel Cells, or a derivative of one of these technologies, as determined by the Administrator, in consultation with the Secretary of Energy.

"(k) The term 'State' means one of the forty-eight contiguous States and the District of Columbia.

"(l) The term 'unit' means a fossil fuel-fired steam production device such as a boiler or furnace used to combust fuel to produce steam.

"(m) The term 'actual 1985 emission rate' means the annual average sulfur dioxide or nitrogen oxides emission rate in units of pounds per million Btu as reported in the NAPAP Emissions Inventory, Version 2.

"ALLOWANCE PROGRAM FOR EXISTING UNITS

"SEC. 503. (a) ALLOCATION OF ANNUAL ALLOWANCES FOR EXISTING UNITS.—For the emission limitation programs under this title, the Administrator shall allocate annual allowances to the owner or operator of the affected units at an affected source in an amount equal to the annual tonnage emission limitation calculated under section 504, 505, 507, or 509 except as otherwise specifically provided in this title. The Administrator shall issue allowances for each affected unit at an affected source at the time the permit is issued for the source, as provided in section 507. If an existing affected unit is removed from commercial operation, the annual allocation of allowances shall continue to be issued to the owner or operator.

"(b) ALLOWANCE SYSTEM.—Allowances issued under this title may be transferred among the owners or operators of affected sources under this title, as provided by regulation. In phase I, transfers of allowances shall be limited to affected sources within a single State, except that an owner or operator of two or more affected sources may transfer allowances among those sources, irrespective of State boundaries. In phase II, allowances may be transferred among affected sources within each of the geographic regions of the country, as prescribed by regulation. Transfers of allowances shall not be effective until written certification of the transfer, signed by a responsible official of each party to the transfer, is received and recorded by the Administrator. The Administrator shall promulgate regulations, not later than eighteen months after enactment, to establish the allowance system prescribed under this section, including, but not limited to, requirements for the issuance, transfer, and use of allowances under this title. Such regulations shall provide, consistent with the purposes of this title, for the identification of unused allowances, and for such unused allowances to be carried forward and added to allowances allocated in subsequent years.

"(c) INTERPOLLUTANT TRADING.—The regulations under subsection (b) shall provide for trading of sulfur dioxide and nitrogen oxide allowances, including the banking of nitrogen oxide reductions in phase I to be credited against reductions required in phase II. Such rules shall provide that, for trading purposes, 1.5 pounds of nitrogen oxides shall be equivalent to 1.0 pound of sulfur dioxide. Interpollutant trades of these pollutants in nonattainment areas shall be subject to approval by the Administrator.

"(d) ALLOWANCE TRACKING SYSTEM.—The Administrator shall establish a system for issuing, recording, and tracking allowances, and shall specify by regulation the procedures and requirements for that system. All allowance allocations and transfers shall upon recordation by the Administrator be deemed a part of each unit's permit requirements for purposes of section 507.

"(e) NEW UNITS.—The owner or operator of each new unit must hold allowances equal to the annual tonnage of sulfur dioxide emitted by the unit, after December 31, 2000. New units shall not be eligible for an allocation of sulfur dioxide allowances under subsection (a). Notwithstanding the geographic limitations on transfers of allowances in subsection (b), new units may obtain allowances from any unit allocated allowances under this title.

"(f) NATURE OF ALLOWANCES.—An allowance issued under this title is a limited authorization to emit sulfur dioxide or nitrogen oxides in accordance with the provisions of the Act. Such allowances may be limited, revoked or otherwise modified in accordance with the provisions of this Act, or future amendments to it.

"(g) PROHIBITION.—It shall be unlawful for any person to hold or transfer any allowance issued under this title, except in accordance with regulations issued by the Administrator.

"FIRST PHASE SULFUR DIOXIDE EMISSION REDUCTION PROGRAM

"SEC. 504. (a)(1) After December 31, 1995, each source that includes one or more affected units listed in table A is an affected source under this section.

"(2) Any existing steam-electric unit with nameplate capacity of 100 MWe or greater, not included in table A, that emits sulfur dioxide at an annual rate of 2.50 lbs./mmBtu or greater, for any calendar year after the date of enactment and prior to 2001, shall also be an affected unit for purposes of this section.

"(b) EMISSION LIMITATION.—After December 31, 1995, each unit described in subsection (a)(1) shall be subject to the annual sulfur dioxide tonnage emission limitation listed in table A. The annual limitation for any unit described in subsection (a)(2) shall equal the product of each unit's baseline multiplied by an emission rate of 2.50 lbs/mmBtu, divided by 2,000.

"(c) AFFECTED UNIT AUTHORITY.—The owner or operator of an affected unit under subsection (a) may submit a proposal to reassign the sulfur dioxide requirements to any other unit(s) under the control of the same owner or operator. In order to reassign the requirements, the owner or operator shall submit an alternative proposal to the Administrator for approval in conjunction with submission of a permit application and compliance plan under section 507(c)(1). Any proposal must include—

"(1) designation of the substitute affected units to which the obligations under subsection (a) shall apply, in addition to, or in lieu of, the original affected units designated under that subsection;

"(2) specification of the baseline, the actual 1985 sulfur dioxide emission rate, and the authorized annual tonnage limitation for the original affected unit;

"(3) calculation of the calendar year 1985 annual tonnage emitted by the substitute units, based on the baseline for each unit, as defined in section 502(d), multiplied by the unit's actual 1985 emission rate;

"(4) specification of the emission rates, and the annual tonnage limitations that would be applicable to the original and substitute affected units;

"(5) documentation, satisfactory to the Administrator, that the reassigned tonnage limits will, in total, achieve the same or a greater reduction than would have been achieved by the requirements of subsection (a); and

"(6) such other information as the Administrator may require.

The Administrator shall review and act on any proposal in accordance with subsection (d).

"(d) ADMINISTRATOR'S ACTION ON A PROPOSAL.—

"(1) The Administrator shall review, and approve any proposal meeting the requirements of subsection (c). If a proposal does not meet the requirements of subsection (c), the Administrator shall disapprove it. The Administrator shall act on a proposal within six months after receipt of a complete submission.

"(2) For an approved proposal, each substitute unit and source shall be deemed affected under this title, and the Administrator shall act on the submission in accordance with section 507(c). The Administrator shall also allocate allowances to the affected units in accordance with the approved proposal. For a disapproved proposal, the Administrator shall issue allowances in accordance with subsection (a). The Administrator's action on any proposal submitted under subsection (c) shall not require a hearing or opportunity for public comment, and shall not be subject to judicial review.

"TABLE A

Affected sources and units in phase 1 and their sulfur dioxide allowances (tons)

State	Plant name	Unit	Phase 1 allowances	Phase 2 allowances
Alabama	Colbert	1	13,600	6,520
		2	15,300	7,350
		3	15,400	7,390
		4	15,400	7,400
		5	37,200	17,800
	E.C. Gaston	1	18,100	8,690
		2	18,500	8,900
		3	18,300	8,790
		4	19,300	9,250
		5	59,800	28,700
Florida	Big Bend	1	28,400	13,600
		2	27,100	13,000
		3	26,700	12,800
	Crist	6	19,200	9,200
		7	28,100	13,500
Georgia	Bowen	1	54,800	26,300
		2	56,300	27,000
		3	71,800	34,400
		4	71,700	34,400
	Hammond	1	8,780	4,220
		2	9,220	4,420
		3	8,910	4,280
		4	37,600	18,100
	Jack McDonough	1	19,900	9,550
		2	20,600	9,880
	Wansley	1	70,800	34,000
		2	65,400	31,400
	Yates	1	7,200	3,460
		2	7,040	3,380
		3	6,950	3,340

"TABLE A—Continued

Affected sources and units in phase 1 and their sulfur dioxide allowances (tons)

State	Plant name	Unit	Phase 1 allowances	Phase 2 allowances
		4	8,910	4,280
		5	9,410	4,520
		6	24,800	11,900
		7	21,500	10,300
Illinois	Baldwin	1	42,000	20,200
		2	44,400	21,300
		3	42,600	20,400
	Coffeen	1	11,800	5,600
		2	35,700	17,100
	Grand Tower	4	5,910	2,840
	Hennepin	2	18,400	8,820
	Joppa Steam	1	12,600	6,040
		2	10,800	5,170
		3	12,300	5,890
		4	11,400	5,450
		5	11,400	5,480
		6	10,600	5,100
	Kincaid	1	31,500	15,100
		2	29,100	14,000
	Meredosia	3	13,900	6,670
	Vemillion	2	8,880	4,260
Indiana	Bailly	7	11,100	5,320
		8	12,400	5,970
	Breed	1	18,500	8,880
	Cayuga	1	33,400	16,000
		2	34,100	16,400
	Clifty Creek	1	20,200	9,670
		2	19,800	9,510
		3	20,400	9,800
		4	20,100	9,640
		5	19,400	9,290
		6	20,400	9,780
	Elmer W. Stout	5	3,880	1,860
		6	4,770	2,290
		7	23,600	11,300
	F.B. Culley	2	3,100	1,490
		3	17,000	8,140
	Frank E. Ratts	1	8,330	4,000
		2	8,480	4,070
	Gibson	1	40,400	19,400
		2	41,000	19,700
		3	41,100	19,700
		4	40,300	19,400
	H.T. Pritchard	6	5,770	2,770
	Michigan City	12	23,000	11,100
	Petersburg	1	16,400	7,890
		2	32,400	15,500
	R. Gallagher	1	4,690	2,250

"TABLE A—Continued

Affected sources and units in phase 1 and their sulfur dioxide allowances (tons)

State	Plant name	Unit	Phase 1 allowances	Phase 2 allowances
		2	7,280	3,490
		3	6,530	3,130
		4	6,800	3,270
	Tanners Creek	4	24,800	11,900
	Wabash River	1	3,400	1,920
		2	2,860	1,370
		3	3,750	1,800
		5	3,670	1,760
		6	12,300	5,890
	Warrick	4	27,000	12,900
Iowa	Burlington	1	10,700	5,140
	Des Moines	7	1,680	805
	Milton L. Kapp	2	13,800	6,610
	Prairie Creek	4	8,180	3,920
	Riverside	5	3,300	1,590
Kansas	Quindaro	2	4,130	1,980
Kentucky	Coleman	1	11,200	5,390
		2	12,800	6,160
		3	12,300	5,930
	Cooper	1	7,450	3,570
		2	15,300	7,360
	E.W. Brown	1	7,110	3,410
		2	10,900	5,240
		3	26,100	12,500
	Elmer Smith	1	5,440	2,610
		2	14,400	6,920
	Ghent	1	28,400	13,600
	Green River	4	7,820	3,750
	H.L. Spurlock	1	22,800	10,900
	Henderson II	1	13,300	6,410
		2	12,300	5,910
	Paradise	3	59,200	28,400
	Shawnee	10	10,200	4,880
Maryland	Chalk Point	1	21,900	10,500
		2	23,900	11,700
	C.P. Crane	1	10,300	4,960
		2	9,230	4,430
	Morgantown	1	35,200	16,900
		2	38,500	18,500
Michigan	J.H. Campbell	1	19,300	9,250
		2	23,100	11,100
Mississippi	Jack Watson	4	17,800	8,540
		5	36,500	17,500
Missouri	Asbury	1	16,200	7,770
	James River	5	4,830	2,320
	Labadie	1	35,700	17,100
		2	37,700	18,100
		3	40,300	19,400

"TABLE A—Continued

Affected sources and units in phase 1 and their sulfur dioxide allowances (tons)

State	Plant name	Unit	Phase 1 allowances	Phase 2 allowances
		4	35,900	17,300
	Montrose	1	7,390	3,550
		2	8,200	3,940
		3	10,100	4,840
	New Madrid	1	28,200	13,600
		2	32,500	15,600
	Sibley	3	15,600	7,480
	Sioux	1	22,600	10,800
		2	21,100	10,100
	Thomas Hill	1	10,300	4,920
		2	17,200	8,270
New Hampshire	Merrimack	1	10,200	4,890
		2	22,000	10,800
New Jersey	B.L. England	1	9,060	4,350
		2	11,700	5,630
New York	Dunkirk	3	12,600	6,050
	Milliken	1	8,380	4,020
		2	12,400	5,960
	Northport	1	19,800	9,510
		2	24,100	11,600
		3	26,500	12,700
	Port Jefferson	3	10,500	5,030
		4	12,300	5,920
Ohio	Ashtabula	5	16,700	8,040
	Avon Lake	8	11,700	5,590
		9	30,500	14,600
	Cardinal	1	34,300	16,400
		2	38,300	18,400
	Conesville	1	4,210	2,020
		2	4,890	2,350
		3	5,500	2,640
		4	48,800	23,400
	Eastlake	1	7,800	3,750
		2	8,640	4,150
		3	10,000	4,810
		4	14,500	6,970
		5	34,100	16,400
	Gen. J.M. Gavin	1	79,100	38,000
		2	80,600	38,700
	Kyger Creek	1	19,300	9,260
		2	18,600	8,910
		3	17,900	8,600
		4	18,700	8,980
		5	18,700	9,000
	Miami Fort	6	11,400	5,460
		7	38,500	18,500
	Muskingum River	1	14,900	7,140
		2	14,200	6,800

"TABLE A—Continued

Affected sources and units in phase 1 and their sulfur dioxide allowances (tons)

State	Plant name	Unit	Phase 1 allowances	Phase 2 allowances
		3	14,000	6,700
		4	11,800	5,650
		5	40,500	19,400
	Niles	1	6,940	3,330
		2	9,100	4,370
	Picway	5	4,930	2,370
	R. E. Burger	3	3,080	1,480
		4	10,800	5,170
		5	12,400	5,970
	W.H. Sammis	5	24,200	11,600
		6	39,900	19,200
		7	43,200	20,700
	W.C. Beckjord	5	8,950	4,290
		6	23,000	11,000
Pennsylvania	Armstrong	1	14,400	6,920
		2	15,400	7,410
	Brunner Island	1	27,800	13,300
		2	31,100	14,900
		3	53,800	25,800
	Cheswick	1	39,000	18,700
	Conemaugh	1	59,800	28,700
		2	66,400	31,900
	Hatfield's Ferry	1	37,800	18,200
		2	37,300	17,900
		3	40,300	19,300
	Homer City	1	40,100	19,200
		2	34,700	16,700
	Martins Creek	1	12,700	6,080
		2	12,800	6,150
	Portland	1	5,940	2,850
		2	10,200	4,910
	Shawville	1	10,300	4,960
		2	10,300	4,960
		3	14,200	6,830
		4	14,100	6,760
	Sunbury	3	8,760	4,210
		4	11,500	5,500
Tennessee	Allen	1	15,300	7,360
		2	16,800	8,050
		3	15,700	7,520
	Cumberland	1	86,700	41,600
		2	94,800	45,500
	Gallatin	1	17,600	8,470
		2	17,300	8,310
		3	20,000	9,610
		4	21,300	10,200
	Johnsonville	1	7,790	3,740
		2	8,040	3,860

“TABLE A—Continued

Affected sources and units in phase 1 and their sulfur dioxide allowances (tons)

State	Plant name	Unit	Phase 1 allowances	Phase 2 allowances
		3	8,410	4,040
		4	7,990	3,830
		5	8,240	3,950
		6	7,890	3,790
		7	8,980	4,310
		8	8,700	4,180
		9	7,080	3,400
		10	7,550	3,630
West Virginia	Albright	3	10,700	5,120
	Fort Martin	1	41,600	20,000
		2	41,200	19,800
	Harrison	1	48,600	23,300
		2	46,100	22,100
		3	41,500	19,900
	Kammer	1	18,700	9,000
		2	19,500	9,340
		3	17,400	8,350
	Mitchell	1	44,000	21,100
		2	45,500	21,800
	Mount Storm	1	43,700	21,000
		2	35,600	17,100
		3	42,400	20,400
Wisconsin	Edgewater	4	24,700	11,900
	La Crosse/Genoa	3	19,100	9,160
	Nelson Dewey	1	6,010	2,880
		2	6,680	3,210
	North Oak Creek	1	5,220	2,510
		2	5,140	2,470
	Pulliam	8	7,510	3,600
	South Oak Creek	5	9,670	4,640
		6	12,000	5,780
		7	16,200	7,770
		8	15,800	7,580

“SECOND PHASE SULPHUR DIOXIDE EMISSION REDUCTION PROGRAM

“SEC. 505. (a) APPLICABILITY.—After December 31, 2000, each steam-electric existing unit with nameplate capacity of 75 MWe or greater and an actual 1985 emission rate of 1.20 lbs/mmBtu or greater is an affected unit under this section. In the case of an existing unit that was not in operation during calendar year 1985, the emission rate for a calendar year after 1985, as determined by the Administrator, shall be used in lieu of the 1985 rate in determining applicability under this section. Each source that includes one or more affected units is an affected source.

"(b) EMISSIONS LIMITATIONS.—After December 31, 2000, each affected unit, as described in subsection (a), shall be subject to an annual sulfur dioxide tonnage emission limitation equal to the product of the unit's baseline multiplied by an emission rate equal to 1.20 lbs/mmBtu, divided by 2000.

"(c) UNITS BELOW 75 MWE OR 1.20 LBS/MMBTU.—After December 31, 2000, each steam-electric existing unit with nameplate capacity of less than 75 MWe or an actual 1985 emission rate less than 1.20 lbs/mmBtu shall not exceed an annual emission rate requirement equal to its actual 1985 emission rate. The emission rate requirement for an existing unit that was not in operation during calendar year 1985 shall be the emission rate for a calendar year after 1985, as determined by the Administrator. Such a unit shall not be an affected unit for purposes of this title, except as provided under section 509.

"NITROGEN OXIDES EMISSION REDUCTION PROGRAM

"SEC. 506. (a) APPLICABILITY.—After December 31, 2000, emission rate requirements for nitrogen oxides shall be met in the second phase of the emission reduction program by coal-fired steam-electric existing units with a nameplate capacity of 75 MWe or greater.

"(b) EMISSION LIMITATIONS.—After December 31, 2000, each unit described in subsection (a) shall not exceed a nitrogen oxides emission rate established by the Administrator. The Administrator shall establish emission rates, based on the application of low nitrogen oxides burner technology for each type of boiler, which are designed to reduce total nitrogen oxides emissions by two million tons below 1989 projected emissions for calendar year 2000. Any unit subject to an emission rate requirement under this section shall not be an affected unit for nitrogen oxides for purposes of this title, except as provided in section 509.

"PERMITS AND COMPLIANCE PLANS

"SEC. 507. (a) PERMIT PROGRAM.—This title shall be implemented by permits issued in accordance with the provisions of title IV, as modified by this title. Any permit issued by the Administrator, or a State with an approved permit program, shall prohibit (1) emissions of sulfur dioxide or nitrogen oxides in excess of the total allowances or limitations for the affected unit or source, (2) exceedances of applicable sulfur dioxide or nitrogen oxide emissions rates, or (3) contravention of any other provision of the permit.

"(b) COMPLIANCE PLAN.—Each permit application shall be accompanied by a compliance plan for the source to comply with its requirements under title V. The compliance plan shall provide all necessary information on the schedule and means by which the source will achieve compliance with its annual tonnage limitation, including specification of any additional allowances beyond the initial allocation that will be used to achieve compliance. The Administrator may also require—

"(1) for a source, a demonstration of attainment of national ambient air quality standards, and

"(2) from the owner or operator of two or more affected sources, an integrated compliance plan providing an overall plan for achieving compliance at the affected sources.

"(c) FIRST PHASE PERMITS.—The Administrator shall issue permits to the affected sources under section 504.

"(1)(A) Not later than twenty-seven months after the date of enactment, the owner or operator or each affected source under section 504 shall submit a permit application and compliance plan for that source in accordance with regulations issued by the Administrator. The owner or operator shall also provide either a certification by the Governor or a notification that a certification was requested but not issued in accordance with subsection (d). The permit application and the compliance plan shall be binding on the owner or operator, and be enforceable for purposes of title V requirements, in lieu of a permit, until a permit is issued by the Administrator for the source.

"(B) In the case of a compliance plan for an affected source under section 504 for which the owner or operator proposes to meet the requirements of that section by reducing utilization of the unit by 20 per centum or more, as compared with the baseline prescribed in section 502(c)(1)(A), or by shutting down the unit, the owner or operator shall include in the compliance plan a specification of the units that will provide electrical generation to compensate for the reduced output of the affected source. The source, and any unit to be used for such compensating generation, if not otherwise affected under section 504, shall be deemed affected under section 504, subject to the phase I requirements of this title, except that allowances shall be allocated to such unit in the amount of an annual limitation equal to the product of the unit's baseline multiplied by the unit's actual 1985 emission rate, divided by 2000.

"(2) If the Administrator determines that a proposed compliance plan does not satisfy the requirements of this title or title IV, the plan shall be disapproved within six months after receipt of a complete submission.

"(3) Not later than eighteen months after enactment, the Administrator shall promulgate regulations, in accordance with title IV, to implement a Federal permit program to issue permits for affected sources under this title. Following promulgation, the Administrator shall issue a permit to implement the requirements of section 504 and the allowances provided under section 503 to the owner or operator of each affected source under that section. Such a permit shall supersede any permit application and compliance plan submitted under paragraph (1).

"(d) CERTIFICATION.—Any owner or operator submitting a phase I permit application and compliance plan under subsection (c) shall request a certification from the Governor of any State within which the source is located that the application and compliance plan are consistent with State law. Where required by State law, the Governor's certification may preclude the use of coal produced outside the State at the source. The Governor's certification or denial of certification shall be a condition of any permit issued by the Administrator or a State to the source unless the Administrator, within sixty days after receipt, notifies the Governor that the certification or denial is inconsistent with the provisions or purposes of the Act or with other compelling national interest. In the event that the Governor fails or refuses to act on a request for certification within ninety days after receipt of the request, the requirements of this subsection shall be waived with respect to such application and compliance plan.

"(e) SECOND PHASE PERMITS.—To implement sections 505 and 506, each State in which one or more sources subject to those sections are located shall submit a permit program to the Administrator for approval, as provided under section 402 of title IV. The Administrator shall approve any permit program meeting the requirements of section 402 and this title.

"(1) The owner or operator of each affected source under section 505 shall submit a permit application and compliance plan for that source to the permitting authority, not later than January 1, 1995.

"(2) Not later than July 1, 1996, each State with an approved permit program shall issue permits to the owners or operators of existing affected sources under section 505 that satisfy the requirements of title IV and this title. In the case of a State without an approved permit program, or a State that fails to issue permits to all of its existing affected sources by July 1, 1996, the Administrator shall, not later than July 1, 1997, issue a permit to the owner or operator of each such affected source that has not been issued a State permit.

"(3) Not later than July 1, 1997, the Administrator shall issue allowances to each affected source for the calendar years included within the permit term, and these shall be deemed a part of the permit issued for that source, as provided in section 503.

"(4) The owner or operator of any unit subject to an emission rate requirement under section 505(c) or 506 shall submit a permit application for such unit to the permitting authority, not later than January 1, 1998. The permitting authority shall issue a permit to the owner or operator that satisfies the requirements of title IV and this title, including any appropriate monitoring and reporting requirements. Unless designated under section 509, such a unit shall not receive, and is not obligated to emit in conformance with, allowances issued under this title.

"(f) NEW UNIT PERMITS.—(1) Each State shall submit a permit program for new units to the Administrator for approval, as provided under section 402 of title IV. The Administrator shall approve any permit program meeting the requirements of section 402 and this title.

"(2) The owner or operator of each source that includes a new unit or units shall submit a permit application and compliance plan to the permitting authority not later than twenty-four months prior to December 31, 2000, or to commencing operation of the unit, whichever is later. The permitting authority shall issue a permit to the owner or operator of the unit that satisfies the requirements of title IV and this title.

"(g) AMENDMENT OF APPLICATION AND COMPLIANCE PLAN.—At any time after the submission of an application and compliance plan under this section, the applicant may submit a revised application and compliance plan, in accordance with the requirements of this section.

"(h) PROHIBITION.—It shall be unlawful for an owner or operator (1) to fail to submit a permit application or compliance plan in accordance with the deadlines specified in this section or otherwise to fail to comply with regulations implementing this section, or (2) to operate any source subject to this title except in compliance with the terms and requirements of a permit application and compliance plan or permit issued by the Administrator or a State with an approved permit program.

"REPOWERED SOURCES

"SEC. 508. (a) AVAILABILITY.—Not later than January 1, 1998, the owner or operator of an existing unit may demonstrate to the permitting authority that one or more units will be repowered with a qualifying clean coal technology to comply with the requirements under section 505 or 506. The owner or operator shall, as part of any such demonstration, provide, not later than December 31, 2000, satisfactory documentation of a preliminary design and engineering effort for such repowering and an executed contract for the majority of the equipment to repower such unit and such other information as the Administrator may require by regulation.

"(b) EXTENSION.—An owner or operator satisfying the requirements of subsection (a) shall be granted an extension of the emission limitation or rate requirement compliance date for that unit from December 31, 2000 to December 31, 2003. The extension shall be specified in the permit issued to the source under section 507, together with any compliance schedule and other requirements necessary to meet second phase requirements by the extended date. Any unit that is granted an extension under this section shall not be eligible for a waiver under section 111(j) of ths Act.

"(c) CONTROL REQUIREMENTS.—(1) Any source qualifying for an extension under this section shall not be required to meet any standard of peformance under section 111. Except as provided in paragraph (2), any qualifying source that will not increase emissions of any pollutant relative to its pre-repowering level, as measured by its potential to emit, expressed as mass per unit of time, shall not be subject to the requirements of parts C and D of this Act for that pollutant.

"(2) Any qualifying source that will increase emissions of a pollutant relative to its potential pre-repowering level shall not be subject to the requirements of parts C and D of this Act for that pollutant: *Provided*, That the owner or operator of such source submits information sufficient to demonstrate to the Administrator (in consultation with the Federal Land Manager with respect to (C) below) that the increased emission level will not—

"(A) cause or contribute to an exceedance in any area of any national ambient air quality standard or of any maximum allowable increase in concentrations established under part C of the Act; or

"(B) interfere with reasonable further progress within the meaning of part D of title I; or

"(C) result in an adverse impact on visibility or air quality related values in any class I area under part C.

Upon receipt of a complete submission, the Administrator shall determine within ninety days whether the requirements of subparagraphs (A) through (C) have been met.

"(d) ALLOWANCES.—(1) For the period of the extension under this section, the Administrator shall issue to the owner or operator of the affected source, annual allowances for sulfur dioxide equal to the affected unit's baseline multiplied by the lesser of the unit's federally approved SIP limitation or its actual emission rate for 1996. Such allowances may not be transferred or used by any other source to meet emission requirements under this title. The source owner or operator shall notify the Administrator sixty days in advance of the date on which the affected unit for which the extension has been granted is to be removed from operation to install the repowering technology.

"(2) Effective on that date, the emission rate for the source shall revert to 1.20 lbs/mmBtu for sulfur dioxide. Allowances for the year in which the source is removed from operation to install the repowering technology shall be calculated by multiplying that rate times the baseline, divided by two thousand, and prorated accordingly, and are transferable.

"(3) Except as provided in paragraph (4), allowances for calendar years after the year the repowering is complete shall be based on 1.20 lb./mmBtu of sulfur dioxide multiplied by the baseline.

"(4) In lieu of meeting the requirements of paragraph (3), the owner or operator of such unit may elect to receive allowances calculated as the sum of the following:

"(A) 1.2 lb/mmBtu emission rate multiplied by the baseline, divided by two thousand, and

"(B) the annual equivalent emission rate required by the standard under section 111 that would apply in the absence of subsection (c)(1) of this section, multiplied by the difference between the nameplate electric generating capacity of the unit after repowering and the nameplate capacity prior to repowering, multiplied by the heat rate of the repowered unit, multiplied by 3.1.

"(5) Allowances issued in accordance with paragraph (4) may not be transferred.

"(e) PROHIBITION.—It shall be unlawful for the owner or operator of a repowered source to fail to comply with the requirement of this section, and any regulations to implement this section.

"ELECTION FOR ADDITIONAL SOURCES

"SEC. 509. (a) APPLICABILITY.—The owner or operator of any existing unit or process source under subsection (e), that emits sulfur dioxide or nitrogen oxides, but that is not an affected unit, may elect to designate that unit, or source, to become affected under this title. An election may be submitted to the Administrator for approval anytime after promulgation of regulations under subsection (g) of this section. The Administrator shall approve a designation that meets the requirements of this section and such designated unit, or source, shall be affected for purposes of this title.

"(b) ESTABLISHMENT OF BASELINE.—The baseline for a unit designated under this section shall be established by the Administrator by regulation, based on fuel consumption and operating data for the unit for calendar years 1985, 1986, and 1987, or if not available, the Administrator may prescribe a baseline based on alternative representative data.

"(c) EMISSION LIMITATIONS.—Annual emission limitations for sulfur dioxide or nitrogen oxides shall be equal to the product of the baseline multiplied by the lesser of the unit's 1985 actual or allowable emission rate in lbs/mmBtu, or, if the unit did not operate in 1985 the emission rate for a calendar year after 1985 (as determined by the Administrator), divided by 2000. After December 31, 2000, the emission rate for calculating an emission limitation under this subsection shall be the rate prescribed under section 505(c) or 506 for any unit subject to those provisions. However, any such unit shall be subject only to an emission limitation under this section, and not also to an emission rate requirement under those provisions.

"(d) ALLOWANCES AND PERMITS.—The Administrator shall issue allowances to an affected unit, or source, under this section in an amount equal to the limitation calculated under subsection (c) or (e), in accordance with section 503. Such allowances may be transferred to the owner or operator of any other affected source in accordance with the provisions of this title. The permitting authority shall issue a permit to the affected source in accordance with section 507.

"(e) PROCESS SOURCES.—The Administrator may establish, by regulation, a program for designation of process sources as affected sources under this section. The Administrator shall define the sources that may be included (not including any unit as defined under this title), specify the operating and emission baselines and data requirements, prescribe CEMS or other monitoring requirements, and promulgate permit, reporting, and any other requirements necessary to implement such a program.

"(f) LIMITATION.—Any unit designated under this section shall not transfer or bank allowances produced as a result of reduced utilization or shutdown.

"(g) IMPLEMENTATION.—The Administrator shall issue regulations to implement this section not later than eighteen months after enactment.

"EXCESS EMISSIONS

"SEC. 510. (a) EXCESS EMISSIONS FEE.—The owner or operator of any affected source that emits sulfur dioxide or nitrogen oxides for any calendar year in excess of the allowances it possesses for that calendar year shall be liable for the payment of an excess emission fee. That fee shall be calculated on the basis of the number of tons emitted in excess of allowances multiplied by $2,000. Any such fee shall be due and payable without demand to the United States Environmental Protection Agency as provided in regulations issued by the Administrator. Any such funds shall be deposited in the United States Treasury pursuant to the Miscellaneous Receipts Act. Any fee due and payable under this section shall not diminish any fine, penalty or fee imposed on the same source under any other section of this Act.

"(b) EXCESS EMISSIONS OFFSET.—The owner or operator of any affected source liable for payment of a fee under subsection (a) is also liable to offset the excess emissions by an equal tonnage amount in the following calendar year, or such longer period as the Administrator may prescribe. The owner or operator of the source shall, within sixty days after the end of the year, submit to the Administrator, and the State, a plan to achieve the required offsets. The Administrator shall also deduct allowances equal to the excess tonnage from those issued for the source for the calendar year, or succeeding years, following the year in which the excess emissions occurred.

"(c) FEE ADJUSTMENT.—The Administrator shall, by regulation, adjust the fee specified in subsection (a) for inflation, based on the Consumer Price Index, beginning in calendar year 1996 and annually thereafter.

"(d) PROHIBITION.—It shall be unlawful for the owner or operator of any source liable for a fee and offset under this section to fail to pay the fee under subsection (a) or to provide, and thereafter comply with, a compliance plan as required by subsection (b), or offset excess emissions as required by subsection (b).

"MONITORING, REPORTING, AND RECORDKEEPING REQUIREMENTS

"SEC. 511. (a) APPLICABILITY.—All sources subject to this title shall be required to install and operate CEMS and quality assure the data for sulfur dioxide, nitrogen oxides, opacity and volumetric flow for each unit subject to this title. The Administrator shall, by regulations issued not later than eighteen months after enactment, specify the requirements for CEMS, for alternative methods that provide sufficiently reliable and timely information, and for record keeping and reporting of information from such systems.

"(b) First Phase Requirements.—Within thirty-six months after enactment, the owner or operator of each affected unit under section 504 shall install and operate CEMS, quality assure the data, and keep records and report in accordance with regulations issued under subsection (a).

"(c) Second Phase Requirements.—Not later than January 1, 1995, the owner or operator of each source subject to sections 505 and 506 which has not previously met the requirements of subsection (a) shall comply with those requirements.

"(d) Unavailability of CEMS.—If CEMS data is not available for any affected unit during any period of a calendar year in which such data is required under this title, and the owner or operator cannot provide information, satisfactory to the Administrator, on emissions during that period, the Administrator shall deem the unit to be operating in an uncontrolled manner and, by regulation, prescribe means to calculate emissions for that period. The owner or operator shall be liable for excess emissions fees and offsets under section 510 in accordance with such regulations which shall be issued not later than eighteen months after enactment.

"(e) PROHIBITION.—It shall be unlawful for the owner or operator of any source subject to this title to operate a source without complying with the requirements of this section, and any regulations implementing this section

"COMPLIANCE WITH OTHER PROVISIONS

"SEC. 512. (a) GENERAL.—Except as expressly provided, compliance with the requirements of this title shall not exempt or exclude the owner or operator of any source subject to this title from compliance with any other applicable requirements of this Act.

"(b) STACK HEIGHT REQUIREMENTS.—Except for requirements relating to intermittent or supplemental control systems as defined in section 123(b), compliance with the requirements of section 123 of title I is not required for any source subject to this title for emission requirements for sulfur dioxide and nitrogen oxides.

"ENFORCEMENT

"SEC. 513. A violation by the owner or operator of a source subject to this title of the prohibitions of, requirements of, or regulations promulgated pursuant to title V shall be a violation of this Act. Operation of an affected source to emit sulfur dioxide or nitrogen oxides in excess of its allowances shall be deemed a violation, with each ton emitted in excess of allowances held constituting a separate violation.

"REPORT TO CONGRESS

"SEC. 514. Not later than January 1, 2003, the Administrator shall assess and submit a report to Congress on the environmental effects of the emission reductions under this title.

"CLEAN COAL TECHNOLOGY REGULATORY INCENTIVES

"SEC. 515. (a) For purposes of this section, 'clean coal technology' means any technology, including technologies applied at the precombustion, combustion, or postcombustion stage, at a new or existing facility which will achieve significant reductions in air emissions of sulfur dioxide or oxides of nitrogen associated with the utilization of coal in the generation of electricity, process steam, or industrial products, which is not in widespread use as of the date of enactment of this title.

"(b) FEDERAL RATE INCENTIVES.—(1) Within twenty-four months after enactment of this Act, the Federal Energy Regulatory Commission shall complete a rulemaking to establish a demonstration program for regulatory incentives to promote the development of clean coal technologies and other innovative control technologies that limit powerplant emissions. The regulatory incentives shall include—

"(A) establishment of an incentive rate of return for clean coal or other innovative emission control technologies that recognizes their inherent risk; and

"(B) allowance of a ten-to-twenty-year amortization period to recover the capital costs of a clean coal or other innovative emission control technology.

"(2) The Federal Energy Regulatory Commission demonstration program is subject to the following—

"(A) the program initially will have a five-year life;

"(B) the program will cover no more than four units in each technology class; and

"(C) the technology classes eligible for the program should be reasonably likely to realize significant cost reductions when employed.

"(3) At the end of the five-year demonstration program, the Federal Energy Regulatory Commission shall review the merits of the program and determine whether it should be extended or made permanent.

"(c) FERC PREAPPROVAL OF PRUDENCE FOR CLEAN COAL TECHNOLOGY COSTS.—The Federal Energy Regulatory Commission shall establish a process for negotiating with potential developers of clean coal technology or other innovative control technology projects to agree upon cost caps for future projects and preapproval of the prudency of expenses for those projects if the expenses fall within the agreed-upon cap.

"(d) REVISED REGULATIONS FOR CLEAN COAL TECHNOLOGY DEMONSTRATIONS.—(1) The Administrator shall promulgate regulations under this subsection to revise requirements under section 111 and parts C and D of the Act, as appropriate, to facilitate temporary and permanent clean coal demonstration projects, consistent with the attainment and maintenance of national ambient air quality standards and prevention of significant deterioration as provided in paragraphs (2) and (3). Such regulations shall address physical or operational changes to existing facilities for the sole purpose of installation, operation, cessation, or removal of a clean coal technology demonstration project. For the purposes of this section, a clean coal technology demonstration shall mean a project conducted under title II, section 101(d) of the Further Continuing Appropriations Act of 1985 (section 5903d of title 42 of the United States Code), or subsequent appropriations, up to a total amount of $2.5 billion for commercial demonstration of clean coal technology, or similar projects funded through appropriations for the Environmental Protection Agency. The Federal contribution for a qualifying project shall be at least 20 per centum of the total cost of the demonstration project.

"(2) TEMPORARY PROJECTS.—Installation, operation, cessation, or removal of a temporary clean coal technology demonstration project that is operated for a period of five years or less, and which complies with all State implementation plans and other requirements necessary to attain and maintain the national ambient air quality standards during and after the project is terminated, shall not subject such facility to the requirements of Section 111 or Parts C or D of the Act.

"(3) PERMANENT PROJECTS.—(A) For permanent clean coal technology demonstration projects, any qualifying project shall not be subject to standards of performance under section 111.

"(B) Any permanent demonstration project that complies with all State implementation plans and other requirements necessary to attain and maintain the national air quality standards shall not be subject to the requirements of parts C or D of the Act: *Provided,* That the project will not result in an increase, relative to its predemonstration levels, as measured by its potential to emit, expressed as mass per unit of time, of any pollutant regulated under this Act. For any project that will result in an increase in potential emissions of any such pollutant, the owner or operator and the Administrator shall follow the procedure specified in section 508(c)(2) for that pollutant.

"(4) PREEXISTING REQUIREMENTS.—Any clean coal demonstration technology project shall be subject to its preexisting obligations under this Act until such time as it qualifies under regulations implementing this section for alternate requirements.

"(e) ENCOURAGEMENT OF STATE INCENTIVE PROGRAMS.—Because the use of clean coal technologies is in the national interest, States, including their agencies and political subdivisions which regulate public utility rates and charges, are encouraged to provide additional incentives for their implementation. Those incentives may include, but are not limited to—

"(1) preapproval of recovery of capital costs and other expenses, within reasonable bounds agreed upon before project construction;

"(2) elimination of retroactive 'used and useful' reviews for clean coal technologies;

"(3) rapid amortization of clean coal technology expenditures; and

"(4) immediate recovery of a portion of clean coal technology expenses through a fuel adjustment clause or by some other method.".

TITLE VI—PROVISIONS RELATING TO ENFORCEMENT

SEC. 601. SECTION 113 ENFORCEMENT.

(a) Section 113(a) of the Clean Air Act is amended by striking in its entirety the heading that begins "FINDING OF VIOLATION" and inserting in lieu thereof "NOTIFICATIONS AND COMPLIANCE ORDERS."

(b) Section 113(a)(1) of the Clean Air Act is amended as follows:

(1) In the first sentence, after "finds that any person", insert the words "has violated or"; and following the words "shall notify the person" replace "in violation of" with "who violated".

(2) In the second sentence,

(A) strike the words "If such violation extends beyond the 30th day after the date of the Administrator's notification," and insert in lieu thereof the words "At any time after the expiration of thirty days following the date on which such notice of the violation is issued,";

(B) insert after "of such plan" the following: ", may issue an administrative penalty order in accordance with subsection (d),"; and

(C) insert, at the end of the sentence, the following: ", without regard to the period of the violation. Nothing in this subsection shall preclude the United States from commencing a criminal action under section 113(c) without such notification for any such violation.".

(c) Section 113(a)(2) of the Clean Air Act is amended as follows:

(1) In the first sentence—

(A) insert after the words "applicable implementation plan" the words "or approved permit program";

(B) insert after the words "in which the plan" the words "or program"; and

(C) insert after the words "enforce the plan" the words "or program".

(2) In the third sentence (which begins "During the period"):

(A) insert after the words "enforce such plan" the words "or permit program"; and

(B) insert after the words "requirement of such plan" the words "or program".

(3) Strike the "or" at the end of section 113(a)(2)(A), redesignate subparagraph "(B)" as "(C)", and insert the following new subparagraph (B):

"(B) by issuing an administrative penalty order under subsection (d) of this section, or".

(4) Insert the following new sentence at the end of section 113(a)(2): "Nothing in this subsection shall preclude the United States from commencing a criminal action under section 113(c) without such notification for any such violation.".

(d) Section 113(a)(3) of the Clean Air Act is amended as follows:

(1) Insert the words "has violated or" before the words "is in violation of" in the first sentence.

(2) Strike the words "section 111(e) of this title" and all that follows down through "(relating to inspections, etc.), he" and insert in lieu thereof the following new language: "any other requirement of title I, III, IV, or V of this Act, including, but not limited to, a requirement of any rule, order, waiver or permit promulgated or approved under those titles or for the payment of any fee owed the United States under this Act the Administrator:".

(3) Strike the words "or he" before the words "may bring a civil action" and insert in lieu thereof the following words: "may issue an administrative penalty order in accordance with subsection (d);".

(4) Insert after the words "may commence a civil action in accordance with subsection (b)" the words "and section 305; or may ask the Attorney General to

commence a criminal action in accordance with subsection (c).".

(e) Section 113(a)(4) of the Clean Air Act is amended by inserting at the end thereof: "An order issued under this subsection shall require the person to whom it was issued to comply with the requirement as expeditiously as practicable, but in no event longer than one year after the date the order was issued, and shall be nonrenewable. No order issued under this subsection shall prevent the State or the Administrator from assessing any penalties nor otherwise affect or limit the State or the United States authority to enforce under other provisions of this Act, nor affect any person's obligations to comply with any section of this Act, or a term or condition of any permit or applicable implementation plan promulgated or approved under this Act.".

(f) Section 113(a)(5) of the Clean Air Act is amended as follows:

(1) Strike the words "regulation referred to" and all that follows through "of this subchapter, he" and insert in lieu thereof the following: "Act relating to the construction of new sources or the modification of existing sources, the Administrator:".

(2) Insert a comma after "construction"; strike the word "or" before "modification"; and insert ", or operation" after "modification".

(3) Insert after "such provisions apply" the following: ", may issue an administrative penalty order in accordance with subsection (d),".

(4) Strike "he" before "may bring".

(5) Insert at the end of section 113(a)(5) the following: "Nothing in this subsection shall preclude the United States from commencing a criminal action under section 113(c) without such finding for any such violation.".

(g) Section 113(b) of the Clean Air Act is amended as follows:

(1) Strike the existing heading and insert in lieu thereof the words "CIVIL JUDICIAL ENFORCEMENT".

(2) In the first sentence, insert the words "as appropriate" after "The Administrator shall,".

(3) In the first sentence, insert after "the owner or operator of", the words "an affected source, a major emitting facility, or".

(4) Strike "of" after "$25,000 per day" and insert in lieu thereof "for each".

(5) Strike all of existing paragraphs (1), (3), and (4).

(6) Redesignate paragraph "(2)" as paragraph "(1)", and amend it as follows:

(A) After the words "applicable implementation plan" insert "(such action shall be commenced".

(B) After the words "30 days", strike "after having been notified by the Administrator" and insert in lieu thereof "following the date of the Administrator's notification".

(C) After "violating such requirement" insert ")".

(7) Insert new paragraph (2) as follows:

"(2) violates any other requirement of title I, III, IV or V, including, but not limited to, a requirement of any rule, order, waiver or permit promulgated or approved under this Act or for the payment of any fee owed the United States under this Act; or".

(8) Redesignate existing paragraph "(5)" as "(3)" and amend it by inserting a comma after "construct"; striking the "or" before "modify"; and inserting ", or operate" before "a major stationary source".

(9) Strike in its entirety the sentence beginning "The Administrator may commence a civil action".

(10) Amend the sentence beginning "Any action" thus:

(A) strike the words "the district court of" from before "the United States";

(B) after "United States" insert "District Court for the District of Columbia, or";

(C) after "violation" insert "is alleged to have"

(D) after "assess such civil penalty" insert a comma and delete "and";

(E) after "to collect any" insert "fees owed the United States under the Act and any";

(F) after "noncompliance" insert "assessment and nonpayment";

(G) strike "(and nonpayment penalty)"; and

(H) after "section 120 of this title" insert ", and to award any other appropriate relief."

(11) Strike in its entirety the sentence beginning "in determining the amount of".

(h) Section 113(c) of the Clean Air Act is amended by striking the heading "PENALTIES" and inserting in lieu thereof "CRIMINAL ENFORCEMENT", and by inserting the following new paragraphs 113(c) (1) and (2):

"(1) Any person who knowingly fails to pay any fee owed the United States under title I, III, IV, or V shall, upon conviction, be punished by a fine pursuant to title 18 of the United States Code, or by imprisonment for not more than one year, or by both, per day for each violation. If a conviction of any person under this paragraph is for a violation committed after a first conviction of such person under this paragraph, the maximum punishment shall be doubled with respect to both the fine and imprisonment.

"(2) Any person who negligently releases into the air any hazardous air pollutant listed pursuant to section 112 of this Act or any extremely hazardous substance listed pursuant to section 11002(a)(2) of title 42, and who at the time negligently places another person in imminent danger of death or serious bodily injury shall, upon conviction, be punished by a fine under title 18 of the United States Code, or by imprisonment for not more than one year, or by both, per day for each violation. If a conviction of any person under this paragraph is for a violation committed after a first conviction of such person under this paragraph, the maximum punishment shall be doubled with respect to both the fine and imprisonment.

(i) Section 113(c)(1) of the Clean Air Act is redesignated "(3)" and amended as follows:

(1) Strike after "who knowingly" the "—", and strike subparagraphs (A), (B), (C), and (D) in their entirety (through "(relating to ozone)") and insert the following: "violates any requirement of title I, III, IV or V, including, but not limited to, a requirement of any rule, plan, order, waiver, or permit promulgated or approved under those titles.".

(2) Insert ", upon conviction," before "be punished by a fine"; thereafter, strike "of not more than $25,000 per day of violation" and insert in lieu thereof "pursuant to title 18 of the United States Code".

(3) After "imprisonment for not more than", replace "one year" with "five years", and after "or by both" insert ", per day for each violation".

(4) Strike the last sentence in the subparagraph and insert in lieu thereof: "If a conviction of any person under this paragraph is for a violation committed after a first conviction of such person under this paragraph, the maximum punishment shall be doubled with respect to both the fine and imprisonment.".

(j) Section 113(c)(2) of the Clean Air Act is redesignated "(4)" and amended as follows:

(1) Insert a "—" after "who knowingly", and insert a designation of subparagraph "(A)" before "makes any false statement".

(2) After "or certification in" insert ", or omits material information from or knowingly alters, conceals or fails to maintain or file".

(3) Before "application, record," insert "notice,".

(4) After "required to be" insert "filed,"; after "maintained", strike "under this chapter" and insert in lieu thereof "or used for purposes of compliance under

this Act (whether with respect to the requirements imposed by the Administrator or by a State)".

(5) Before "falsifies", strike "who", insert the following new subparagraph (B) and designate the provision beginning with "falsifies" as subparagraph "(C)":

"(B) fails to notify or report as required under this Act; or".

(6) After "renders inaccurate" insert ", or fails to install"; and after "required to be maintained" insert "or followed".

(7) After "punished by a fine" strike "of not more than $10,000" and insert in lieu thereof "pursuant to title 18 of the United States Code,".

(8) Strike "six months" and insert in lieu thereof "two years", and after "or by both" insert the following: ", per day for each violation. If a conviction of any person under this paragraph is for a violation committed after a first conviction of such person under this paragraph, the maximum punishment shall be doubled with respect to both the fine and imprisonment.".

(k) Current section 113(c)(3) of the Clean Air Act is redesignated as "(6)" and a new section 113(c)(5) is added to the Act as follows:

"(5)(A) Any person who knowingly releases into the air any hazardous air pollutant listed pursuant to section 112 of this Act or any extremely hazardous substance listed pursuant to section 11002(a)(2) of title 42, and who knows at the time that he thereby places another person in imminent danger of death or serious bodily injury shall, upon conviction, be punished by a fine under title 18 of the United States Code, or by imprisonment of not more than fifteen years, or by both, per day for each violation. Any person committing such violation which is an organization shall, upon conviction under this paragraph, be subject to a fine of not more than $1,000,000 per day for each violation. If a conviction of any person under this paragraph is for a violation committed after a first conviction of such person under this paragraph, the maximum punishment shall be doubled with respect to both the fine and imprisonment. For any hazardous air pollutant listed pursuant to section 112 for which the Administrator has set an emissions standard, a release of such pollutant shall not constitute a violation of this paragraph unless it exceeds such standard.

"(B) In determining whether a defendant who is an individual knew that the violation placed another person in imminent danger of death or serious bodily injury—

"(i) the defendant is responsible only for actual awareness or actual belief possessed; and "(ii) knowledge possessed by a person other than the defendant, but not by the defendant, may not be attributed to the defendant;

except that in proving a defendant's possession of actual knowledge, circumstantial evidence may be used, including evidence that the defendant took affirmative steps to be shielded from relevant information.

"(C) The term 'organization' means a legal entity, other than a government, established or organized for any purpose, and such term includes a corporation, company, association, firm, partnership, joint stock company, foundation, institution, trust, society, union, or any other association of persons.

"(D) The term 'serious bodily injury' means bodily injury which involves a substantial risk of death, unconsciousness, extreme physical pain, protracted and obvious disfigurement or protracted loss or impairment of the function of a bodily member, organ, or mental faculty.".

(l) Current section 113(d) of the Clean Air Act is deleted in its entirety and replaced with the following new section 113(d):

"(d) ADMINISTRATIVE ASSESSMENT OF CIVIL PENALTIES.—

"(1) The Administrator may issue an administrative order against any person assessing a civil administrative penalty of up to $25,000 per day for each violation, whenever, on the basis of any available information, the Administrator finds that such person—

"(A) violates any requirement of an applicable implementation plan (such order shall be issued (i) during any period of federally assumed enforcement, or (ii) more than thirty days following the date of the Administrator's notification under subsection (a)(1) of this section of a finding that such person is violating such requirement); or

"(B) violates any other requirement of title I, III, IV or V, including, but not limited to, a requirement of any rule, order, waiver, or permit promulgated or approved under this Act or for the payment of any fee owed the United States under this Act; or

"(C) attempts to construct, modify or operate a major stationary source in any area with respect to which a finding under subsection (a)(5) of this section has been made.

The Administrator's authority under this paragraph shall be limited to matters where the total penalty sought does not exceed $200,000 and the first alleged date of violation occurred no more than twelve months prior to the initiation of the administrative action, except where the Administrator and the Attorney General jointly determine that a matter involving a larger penalty amount or longer period of violation is appropriate for administrative penalty action. Any such determination by the Administrator and the Attorney General shall not be subject to judicial review.

"(2)(A) An administrative penalty assessed under paragraph (d)(1) shall be assessed by the Administrator by an order made on the record after opportunity for a hearing in accordance with sections 554 and 556 of title 5 of the United States Code. The Administrator may issue rules for discovery and other procedures for hearings under this paragraph. Before issuing such an order, the Administrator shall give written notice to the person to be assessed an administrative penalty of the Administrator's proposal to issue such order and provide such person an opportunity to request such a hearing on the order, within fifteen days of the date the notice is received by such person.

"(B) The Administrator may compromise, modify, or remit, with or without conditions, any administrative penalty which may be imposed under paragraph (d)(1).

"(3) The Administrator may implement through regulation, after consultation with the Attorney General, a field citation program for appropriate minor violations, which authorizes the issuance of field citations assessing civil penalties not to exceed $5,000 per day for each violation. Any person to whom a field citation is assessed may, within a reasonable time as prescribed by the Administrator through regulation, elect to pay the penalty assessment or to request a hearing on the field citation. If a request for a hearing is not made within the time specified in the regulation, the penalty assessment in the field citation shall be final. Such hearing shall not be subject to section 554 or 556 of title 5 of the United States Code, but shall provide a reasonable opportunity to be heard and to present evidence. Payment of a civil penalty required by a field citation shall not be a defense to further enforcement by the United States or a State to correct a violation, or to assess the statutory maximum penalty pursuant to other authorities in the Act, if the violation continues.

"(4) Any person against whom a civil penalty is assessed under this subsection may seek review of such assessment in the United States District Court for the District of Columbia, or for the district in which the violation is alleged to have occurred, in which such person resides, or where such person's principal place of business is located, within thirty days following the date the civil penalty order is issued under subsection (d)(2), or the final decision in a hearing under subsection (d)(3) is rendered, and by simultaneously sending a copy of the filing by certified mail to the Administrator and the Attorney General. The Administrator shall promptly file in such court a certified copy, or certified index, as appropriate, of the record on which the order or final decision was issued within thirty days. Such court shall not set aside or remand such order or final decision unless there is not substantial evidence in the record, taken as a whole, to support the finding of a violation or unless the Administrator's assessment of the penalty constitutes an abuse of discretion. In any such proceedings, the United States may seek to recover civil penalties assessed under this section.

"(5) If any person fails to pay an assessment of a civil penalty—

"(A) after the order making the assessment or field citation has become final, or

"(B) after a court in an action brought under paragraph (4) has entered a final judgment in favor of the Administrator,

the Administrator shall request the Attorney General to bring a civil action in an appropriate district court to recover the amount assessed (plus interest at rates established pursuant to 26 U.S.C. 6621(a)(2) from the date of the final order or decision or the date of the final judgment, as the case may be). In such an action, the validity, amount, and appropriateness of such penalty shall not be subject to review. Any person who fails to pay on a timely basis a civil penalty under this section shall be required to pay, in addition to such penalty and interest, the United States' enforcement expenses, including but not limited to attorneys fees and costs incurred by the United States for collection proceedings, and a quarterly nonpayment penalty for each quarter during which such failure to pay persists. Such nonpayment penalty shall be in an amount equal to 20 per centum of the aggregate amount of such person's outstanding penalties and nonpayment penalties accrued as of the beginning of such quarter.".

(m) Current section 113(e) of the Clean Air Act is deleted in its entirety and replaced with the following new sections 113(e) and 113(f):

"(e) PENALTY ASSESSMENT CRITERIA.—

"(1) In determining the amount of any penalty to be assessed under this section or section 304(a), the court shall take into consideration (in addition to such other factors as justice may require) the size of the business, the economic impact of the penalty on the business, the violator's compliance history and good faith efforts to comply, the duration of the violation as established by any credible evidence (including evidence other than the applicable test method), payment by the violator of penalties previously assessed for the same violation, the economic benefit of noncompliance, and the seriousness of the violation.

"(2) A penalty may be assessed for each day of each violation. For purposes of determining the number of days of violation for which a penalty may be assessed under this section or section 304(a), or an assessment may be made under section 120, the violation shall be deemed to commence on the first provable date of violation and to continue each and every day thereafter until the violator establishes that continuous compliance has been achieved, except to the extent that the violator can prove by a preponderance of the evidence that there were intervening days during which no violation occurred or that the violation was not continuing in nature.

"(f) REWARDS.—The Administrator may pay a reward, not to exceed $10,000, to any person who furnishes information or services which lead to a criminal conviction or a civil judicial or administrative judgment of liability for any violation of title I, III, IV, or V of this Act enforced under this section. Any officer, or employee of the United States or any

State or local government who furnishes information or renders service in the performance of an official duty is ineligible for payment under this subsection. An authorized contractor acting as a representative of the Administrator shall be considered an employee of the United States for purposes of this subsection. The Administrator may, by regulation, prescribe additional criteria for eligibility for such a reward.".

SEC. 602. REVIEWABILITY OF ADMINISTRATIVE ORDERS.

(a) Section 307(b)(2) of the Clean Air Act is amended by adding at the end thereof: "Orders or notices issued under section 113(a), section 167 and section 303, administrative subpoenas under section 307(a), and actions under sections 114, 206(c), and 208 of this Act are not considered final action for purposes of this section. Such orders, notices, subpoenas, and actions shall not be subject to judicial review except in a proceeding commenced by the United States under section 113, 120, 204, or 205, or in a citizen suit commenced under section 304, to enforce the order, notice, subpoena, or action. No such order, notice, subpoena, or action may be challenged in any citizen suit under section 304 unless the Administrator and the Attorney General are notified in writing of such challenge.".

(b) Section 307(e) of the Clean Air Act is amended by inserting at the end thereof: "Orders or notices issued under section 113(a), section 167 or section 303, subpoenas issued under section 307(a), and actions under sections 114, 206(c), and 208 of this Act may only be reviewed in a proceeding commenced by the United States under section 113, 120, 204, or 205, or in a citizen suit under section 304, to enforce the order, notice, subpoena, or action.".

SEC. 603. COMPLIANCE CERTIFICATION.

(a) Section 114(a)(1) of the Clean Air Act is amended by—

(1) inserting ", on a one-time, periodic or continuous basis" immediately before "to (A) establish and maintain";

(2) inserting "audit procedures" immediately before "or methods, (D)";

(3) inserting "procedures or" immediately before "methods, at such locations,";

(4) inserting "during such continuous periods" immediately before ", and in such manner as the Administrator";

(5) striking "and" immediately before subparagraph (E); and

(6) redesignating subparagraph (E) as (G) and inserting the following new subparagraphs: "(E) keep periodic or continuous records on control equipment parameters, production variables or other indirect data when direct monitoring of emissions is impractical, (F)

submit compliance certifications in accordance with section 114(a)(3); and".

(b) Section 114(a) is amended by adding the following new paragraph:

"(3) The Administrator shall in the case of any person which is the owner or operator of a major stationary source, and may, in the case of any other person, require enhanced monitoring and submission of compliance certifications. Compliance certifications shall include (i) identification of the applicable requirement that is the basis of the certification, (ii) the method used for determining the compliance status of the source, (iii) the compliance status, (iv) whether compliance is continuous or intermittent, (v) such other facts as the Administrator may require. Compliance certifications and monitoring data shall be public information. Submission of a compliance certification shall in no way limit the Administrator's authorities to investigate or otherwise implement this Act.".

(c) Section 307(b)(1) is amended by inserting "or revising regulations for enhanced monitoring and compliance certification programs under section 114(a)(3) of this Act," immediately before "or any other final action of the Administrator".

SEC. 604. CONTRACTOR INSPECTIONS.

(a) Section 114(a)(2) of the Clean Air Act is amended by inserting "(including an authorized contractor acting as a representative of the Administrator)," immediately before "upon presentation of his credentials".

(b) Section 114(c) is amended by striking "except that such record," and all that follows in the subsection and inserting "of the United States Code. Any authorized representative of the Administrator (including an authorized contractor acting as a representative of the Administrator) shall be considered an employee of the United States for purposes of the provisions of section 1905 of title 18. Nothing in this subsection shall prohibit the Administrator or an authorized representative of the Administrator (including any authorized contractor acting as a representative of the Administrator) from disclosing records, reports or information to other officers, employees or authorized representatives of the United States (including any authorized contractor acting as a representative of the Administrator), or to any State concerned with carrying out this Act, or when relevant in any proceeding under this Act.".

SEC. 605. ADMINISTRATIVE ENFORCEMENT SUBPOENAS.

Section 307 of the Clean Air Act is amended by redesignating subsection (a)(1) as subsection (a), and, in that newly designated subsection, striking "or section 202(b)(5)" and inserting ", any investigation, monitoring, reporting requirement, entry, compliance inspection, or administrative enforcement proceeding under the Act (including but not limited to section 113, section 114, section 120, section 205, section 206, section 208, section 303 or section 306), or to otherwise carry out the provisions of this Act," immediately after "section 202(b)(4) or 211(c)(3)".

SEC. 606. ENFORCEMENT OF ADMINISTRATIVE ORDERS.

Section 303(b) of the Clean Air Act is deleted in its entirety and subsection 303(a) is redesignated as section 303.

SEC. 607. SCOPE OF EMERGENCY ORDERS.

Section 303 of the Clean Air Act, as amended by section 606 of this Act, is further amended by—

(a) striking "the health of persons, and that appropriate State or local authorities have not acted to abate such sources" and inserting "public health or welfare, or the environment";

(b) revising the second sentence to read "If it is not practicable to assure prompt protection of public health or welfare or the environment by commencement of such a civil action, the Administrator may issue such orders as may be necessary to protect public health or welfare or the environment."; and

(c) striking the last two sentences in their entirety.

SEC. 608. CONTRACTOR LISTINGS.

Section 306(a) of the Clean Air Act is amended by—

(a) striking "113(c)(1) of this title" and inserting "113(c), 205(d), 211(d)(3), and 212(e) of this Act"; and

(b) inserting at the end thereof "For convictions arising under section 113(c)(2), the condition giving rise to the conviction also shall be considered to include any substantive violation of this Act associated with the violation of 113(c)(2). The Administrator may extend this prohibition to other facilities owned or operated by the convicted person.".

SEC. 609. JUDICIAL REVIEW PENDING RECONSIDERATION OF REGULATION.

Section 307(b)(1) of the Clean Air Act is amended by adding at the end thereof: "A petition for reconsideration by the Administrator of any otherwise final agency action shall not render the action nonfinal for purposes of judicial review nor extend the time within which a petition for review may be filed, and shall not postpone the effectiveness of the agency action.".

SEC. 610. CITIZEN SUITS.

(a) Section 304(a) of the Clean Air Act is amended by inserting immediately before the period at the end thereof: ", and to apply any appropriate civil penalties (except for actions under paragraph (a)(2)), including those pursuant to a consent judgment, payable to the special fund as established in subsection (g), taking into account the factors listed in section 113(e)".

(b) Section 304 of the Clean Air Act is amended by adding the following new subsection:

"(g) PENALTY FUND.—Penalties received under subsection (a) shall be deposited in a special fund in the United States Treasury for licensing and other services, which shall be available for appropriation, and remain available until expended for use by the Environmental Protection Agency to finance air compliance and enforcement activities.".

(c) Paragraph (2) of subsection 304(c) of the Clean Air Act is amended to read as follows:

"(2) In any action under this section, the Administrator, if not a party, may intervene as a matter of right at any time in the proceeding. In such intervention, the Administrator may substitute himself as the plaintiff with regard to any claim for civil penalties. Upon such substitution, the citizen plaintiff's claims for civil penalties shall abate. A judgment in an action under this section to which the United States is not a party shall not, however, have any binding effect upon the United States.".

(d) Section 304(c) is amended by adding the following new paragraph:

"(3) Whenever any action is brought under this section the plaintiff shall serve a copy of the complaint on the Attorney General of the United States and on the Administrator. No consent judgment shall be entered in an action brought under this section in which the United States is not a party prior to forty-five days following the receipt of a copy of the proposed consent judgment by the Attorney General and the Administrator during which time the Government may submit its comments on the proposed consent judgment to the court and parties or may intervene as a matter of right.".

SEC. 611. ENHANCED IMPLEMENTATION AND ENFORCEMENT OF NEW SOURCE REVIEW REQUIREMENTS.

Section 167 is amended by striking "the construction of a major emitting facility" and inserting "the operation, construction, or modification of a major emitting facility".

SEC. 612. MOVABLE STATIONARY SOURCES.

Section 302 is amended by adding the following subsection:

"(t) STATIONARY SOURCE.—The term "stationary source" means generally any source of an air pollutant except those emissions resulting directly from an internal combustion engine for transportation purposes.".

SEC. 613. ENFORCEMENT OF NEW TITLES OF THE ACT.

Section 120(a)(2)(A) is amended by—

(a) inserting "167, or 303" after "112" in (ii), and deleting "or" and inserting a comma after (iii);

(b) inserting, in clause (iii), "or (iii)" immediately after "(ii)" and deleting "or" and inserting a comma after "(i)";

(c) redesignating clause (iii) as (iv); and

(d) inserting the following new clause:

"(iii) a stationary source which is not in compliance with any requirement of title IV, V or VII of this Act, or".

TITLE VII—MISCELLANEOUS PROVISIONS

SEC. 701. GRANTS FOR SUPPORT OF AIR POLLUTION PLANNING AND CONTROL PROGRAMS.

(a) Sections 105(a)(1) (A) and (B) of the Clean Air Act are amended to read as follows:

"(A) The Administrator may make grants to air pollution control agencies, within the meaning of paragraphs (1), (2), (3), or (4) of section 302, in an amount up to three-fifths of the cost of implementing programs for the prevention and control of air pollution or implementation of national ambient air quality standards. For the purpose of this section, implementation means any activity related to the planning, developing, establishing, carrying-out, improving, or maintaining of such an air program.

"(B) Subject to subsections (b) and (c) of this section, those air pollution control agencies contributing less than the required two-fifths minimum shall have three years following the enactment of this section in which to attain this required minimum level; should such an agency fail to meet and maintain this required level, the Administrator shall reduce the amount of the Federal contribution accordingly.".

(b) Section 105(a)(1)(C) of the Clean Air Act is amended by striking "(B)" and inserting "(A)".

(c) Section 105(b) of the Clean Air Act is amended by—

(1) inserting "(1)" immediately after "(b)"

(2) striking all that follows "(3) the financial need of the respective agencies"; and

(3) redesignating paragraphs (1), (2), and (3) as subparagraphs (A), (B), and (C) respectively.

(d) Section 105 of the Clean Air Act is amended by redesignating subsection (c) as paragraph (b)(2) and is further amended by striking all that follows "into which such area extends." in the newly designated paragraph (b)(2) and inserting "Subject to the provisions of subsection (b)(1) of this section, no State shall have made available to it for application less than one-half of 1 per centum of the annual appropriation for grants under this section for grants to agencies within such State.".

(e) Section 105 of the Clean Air Act is amended by inserting the following new subsection:

"(c)(1) No agency shall receive any grant under this section during any fiscal year when its expenditures of non-Federal funds for recurrent expenditures for air pollution control programs will be less than its expenditures were for such programs during the preceding fiscal year. In order for the Administrator to award grants under this section in a timely manner each fiscal year, the Administrator shall compare an agency's prospective expenditure level to that of its second preceding fiscal year. The Administrator shall revise the current regulations which define applicable nonrecurrent and recurrent expenditures, and in so doing, give due consideration to exempting an agency from the limitations of this paragraph and subsection (a) due to periodic increases experienced by that agency from time to time in its annual expenditures for purposes acceptable to the Administrator for that fiscal year.

"(2) The Administrator may still award a grant to an agency not meeting the requirements of paragraph (1) of this subsection if the Administrator, after notice and opportunity for public hearing, determines that a reduction in expenditures is attributable to a non-selective reduction in the expenditures in the programs of all Executive branch agencies of the applicable unit of Government. No agency shall receive any grant under this section with respect to the maintenance of a program for the prevention and control of air pollution unless the Administrator is satisfied that such a grant will be so used to supplement and, to the extent practicable, increase the level of State, local, or other non-Federal funds. No grant shall be made under this section until the Administrator has consulted with the appropriate official as designated by the Governor or Governors of the State or States affected.".

(f) Section 106 of the Clean Air Act is amended by striking "three-fourths of the air quality planning program costs of such agency" and inserting "three-fifths of the air quality implementation program costs of such agency".

SEC. 702. ANNUAL REPORT REPEAL.

Section 313 of the Clean Air Act is repealed.

SEC. 703. NO_x AND VOC STUDY.

The Administrator of the Environmental Protection Agency, in conjunction with the National Academy of Sciences, shall conduct a study on the role of ozone precursors in tropospheric ozone formation and control. The study should examine the roles of NO_X and VOC emission reductions, the role of biogenic VOC emissions, and the basic information required for air quality models. The study should be completed and a report submitted to Congress within two years of enactment of this section.

SEC. 704. REVIEW AND REVISION OF CRITERIA AND STANDARDS.

(a) Section 109(d)(1) of the Clean Air Act is amended to read as follows:

"(d)(1)(A) Not later than five years after enactment of this paragraph and thereafter as provided in subparagraph (C), the Administrator shall complete a review of the criteria published under section 108 and the standards promulgated under this section and (i) make such revisions in the criteria as may be appropriate to reflect advances in scientific knowledge and (ii) determine whether it is appropriate to propose revisions of the standards based on the applicable criteria. In making revisions or determinations under this subparagraph, the Administrator may use such procedures as he deems appropriate. Notice of revisions and determinations made under this subparagraph shall be published in the Federal Register not later than thirty days after the revisions or determinations, respectively, are made, and copies shall be made available to the general public.

"(B) If the Administrator determines under subparagraph (A) that it is appropriate to propose revision of a standard, he shall commence rulemaking proceedings under section 307(d) and make such revisions as are appropriate as expeditiously as practicable but not later than three years after such determination is made. The Administrator may elect to follow the same procedure with respect to a determination that it is inappropriate to propose revision of a standard.

"(C) After the first review and (as appropriate) revision of a standard under this paragraph, the Administrator shall repeat the process specified in subparagraphs (A) and (B) from time to time for such standard. The review specified in subparagraph (A) shall be completed not later than five years after completion of the last review of the standard or, if the standard was revised as a result of such review (or judicial review), not later than five years after completion of such revision. For any new standard promulgated after the enactment of this paragraph, the first review under subparagraph (A) shall be completed not later than five years after the date of promulgation.

"(D) A determination under subparagraph (A) that it is inappropriate to propose revision of a standard shall be reviewable as a final action under section 307(b). If the Administrator elects to commence rulemaking proceedings under subparagraph (B) with respect to such a determination, the determination shall be reviewable only upon completion of the rulemaking. A determination under subparagraph (A) that it is appropriate to propose revision of a standard shall not be subject to judicial review under section 307(b) or otherwise.

"(E) The Administrator may review and revise criteria or standards earlier or more frequently than required under this paragraph.".

(b) Section 109(d)(2)(B) of the Clean Air Act is amended by striking "January 1, 1980, and at five-year intervals thereafter," and inserting "five years after enactment of paragraph (1) and thereafter at intervals corresponding to the Administrator's review of criteria and standards under paragraph (1),".

(c) Section 108(a)(2) of the Clean Air Act is amended by striking "12 months" and inserting "three years".

(d) Section 108(c) of the Clean Air Act is amended by striking "criteria or" in the first sentence.

(e) Section 109(a)(2) of the Clean Air Act is amended by—

(1) inserting "first" immediately before "issued" in the first sentence;

(2) striking "publish, simultaneously with the issuance of such criteria and information, proposed" in the first sentence and inserting "promulgate";

(3) striking "for any such pollutant." in the first sentence and inserting "as appropriate for such pollutant not later than three years after such issuance.";

(4) striking "paragraph (1)(B) of this subsection" in the second sentence and inserting "subsection (d)"; and

(5) striking "promulgation" in the second sentence and inserting "revision".

(f) Section 109(b) of the Clean Air Act is amended by striking the second sentence of paragraph (1) and by striking the second sentence of paragraph (2).

SEC. 705. AIR POLLUTANT RELEASE INVESTIGATION BOARD.

The Clean Air Act is amended to add a new section to read as follows:

"AIR POLLUTANT RELEASE INVESTIGATION BOARD

"SEC. 192. (a) ESTABLISHMENT.—There shall be established within the Environmental Protection Agency an Air Pollutant Release Investigation Board for the purpose of investigating major life-threatening releases of air pollutants. The Board shall consist of one or more panels of five members convened by the Administrator to investigate such releases.

"(b) MEMBERSHIP.—Any panel of the Board shall consist of four employees of the United States Environmental Protection Agency selected by the Administrator, and the Secretary of Labor or his designate. With the consent of the head of any other Federal agency, the Administrator may select an employee of such agency as a member of the panel in place of an employee of the Environmental Protection Agency.

"(c) DUTIES.—

"(1) The Board may investigate or cause to be investigated (in such detail as it shall prescribe), and determine the facts, conditions, and circumstances and the cause or probable cause or causes of any major life-threatening release of an air pollutant except: (A) any release of source, byproduct, or special nuclear material from a nuclear incident which the Nuclear Regulatory Commission is authorized to investigate, and (B) any transportation-related release, including marine oil spills, which the National Transportation Safety Board is authorized to investigate.

"(2) For any investigation performed under paragraph (1) of this subsection, the Board shall develop a written report on the facts, conditions, and circumstances of the release and shall make such reports available to Congress and, upon reasonable cost, available to the public. No report shall be subject to judicial review in any court.

"(d) POWERS.—

"(1) The Board, or upon the authority of the Board, any member thereof, or any officer or employee duly designated by the Administrator, may, for the purpose of carrying out subsection (c), hold such hearings, sit and act at such times and places, and administer such oaths, as the Board or such officer or employee deems advisable.

"(2) In addition to that described in paragraph (1), the Board may use any information gathering authority of the Administrator under any statute, including the subpoena power provided in section 307(a)(1) of this Act.

"(e) No part of the conclusions, findings, or recommendations of any report of the Board relating to any accidental release or the investigation thereof shall be admitted as evidence or used in any action or suit for damages in which the United States is a party arising out of any matter mentioned in such report.".

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September 26, 1989

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Honorable Max S. Baucus
Chairman, Subcommittee on Environmental Protection
Committee on Environment and Public Works
U.S. Senate
Washington, D.C. 20510

Dear Chairman Baucus:

This letter sets forth the comments of John K. Van de Kamp, Attorney General of the State of California, on the Clean Air Act Amendments of 1989, S. 1490. The Attorney General submits these comments pursuant to his independent powers, under the California Constitution, the California Government Code, and common law, to protect the environment of the state. These comments are not made on behalf of any other state agency or office.

Most Californians live and work in areas that have not attained the federal air quality standards for ozone and carbon monoxide. The resulting health injuries -- loss of lung capacity and energy, asthma, and reduced resistance to infections -- are compounded by cancer and reproductive problems caused by air toxics emissions which total more than 2.5 pounds per Californian per year.

The State of California and our local air quality districts have already adopted control measures that are more stringent than those in many other states. However, more must be done to provide the clean air that we need for good health.

The State of California has a compelling interest in the Clean Air Act Amendments of 1989. We applaud the Bush Administration's stated commitment to achieve clean air throughout the nation. We believe that S. 1490 is a good faith effort to correct deficiencies in the 1977 Act. Nonetheless, S. 1490 must be strengthened to achieve its fundamental goal of clean air. We oppose provisions that might prevent California's adoption of its own standards, in some cases stricter than EPA's, for control of emissions from fuels, motor vehicles, and marine vessels. We oppose other provisions of the bill that seem to wipe out the option of states that has existed since the Clean Air Act was first passed, to adopt stricter standards, both ambient and emissions standards, than those adopted by the federal government. We recommend greater clarity and specificity in other provisions, so as to insure that EPA acts quickly and effectively to review and oversee the states' adoptions of control plans; we oppose expansion of the Administrator's discretion as to when and how to take action, given the Agency's history of delays under the 1977 Act. As to air toxics, we recommend that Congress require the best control technology, and we therefore oppose S. 1490's authorization for more lenient controls.

SMOG

1. The Bill Contains Provisions That Could Be Read to Allow Federal Preemption of More Stringent State Controls on Emissions Sources. These Provisions Should Be Clarified to Ensure That More Stringent State Controls Are Not Preempted.

We are concerned that the bill appears to weaken one of the foundations upon which the federal-state partnership for achieving clean air has always been based: that the federal Clean Air Act is a floor, establishing a baseline for air quality protection below which a state may not fall, but that it allows states to adopt more stringent clean air standards. This option for tougher emissions standards has been consistently and aggressively exercised by California, and we are most concerned that this state be able to continue adopting tougher standards where necessary for the protection of our citizens' health and our economy's well being. The specific areas in which we perceive the possibility for unwelcome federal preemption in this field follow.

(a) The Bill Should Make Clear That California and Other States May Continue to Regulate Fuel Content and Tailpipe Emissions Standards, and That Complete Federal Preemption Is Not Intended.

In some circumstances, the bill as proposed could prevent California from strengthening EPA's emission standards for motor vehicle tailpipes and fuels. The current Clean Air Act allows a state meeting specified requirements to adopt tailpipe standards if at least as stringent as EPA's, and to regulate fuel content if necessary for attainment of clean air. These waivers of federal preemption have allowed California to lead the nation in reducing tailpipe and fuel emissions.

S. 1490 provides that manufacturers of motor vehicles, and manufacturers or refiners of fuel, may control emissions by means different than those mandated in the bill, if the proponent of such "market-based alternative control measures" demonstrates that they would achieve at least the same emissions reductions as required by the otherwise applicable federal standards. Sec. 214 (a), (b). Such manufacturers and refiners could then substitute such measures, "notwithstanding any other section of this title" (id.), for those otherwise required.

The "notwithstanding" clause may mean that states could not adopt their own standards where EPA has approved "alternative control measures" that would achieve the emissions reductions required by federal law. Such preemption would have adverse impacts on air quality in California, whose current or proposed standards are generally more stringent (where different) than S. 1490's. [1] In the specified circumstance, this bill might prevent the adoption of California's standards in eight northeastern states (Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island and Vermont) that are now considering such a proposal. Such preemption could stifle the technological innovation resulting from a state's tightening of federal standards. It would be a disaster for the nonattainment plans in California's major urban areas, since these plans are founded on the assumption that California can continue to enforce its more stringent auto emission standards.

California's air quality could be further degraded by the bill's provision that EPA can approve "alternative control measures" whose average emissions reductions -- among all manufacturers, fuel refiners and marketers -- equals or exceeds those achieved by regular federal measures. Sec. 214(b). This provision would permit EPA to approve such alternative measures that achieve less emissions reduction in one state, and more in another state, than otherwise required. Thus, a state's tailpipe and fuel standards could be preempted by "alternative control measures" that are weaker even if equally applied in all states, and that are made weaker still by the allowance for averaging of emissions reductions on a nationwide basis.

(b) The Bill Would Preempt Existing Local Controls Over Smog-Producing Pollutant Emissions From Marine Vessels in California.

A major contributor to the critical smog problem in California's large coastal cities is emissions from marine vessels, and major local air pollution control districts in California have acted to control VOC emissions from this large source category. Section 183(d)(4) of the bill clearly and unambiguously prohibits any State or local government from adopting or enforcing *any* emissions standard with respect to marine vessels until EPA adopts emissions standards for such vessels.[2] EPA is given four years under the bill to adopt such standards. Since State and local action is preempted for as long as EPA takes to adopt regulations, there will be no controls on the books until EPA acts. Not only is the four year deadline in the bill a long time to be without any emissions standards for marine vessel emissions, but the possibility exists that EPA will not meet this deadline, given its record for meeting the deadlines for issuing regulations in the 1977 Act.

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[1] For example, the California Air Resources Board has proposed .2 grams per mile (gpm) for nitrogen oxide (NOx) emissions from passenger cars, versus the bill's .7 gpm; and for motor vehicle fuels, lower emissions standards in several respects, including sulfur in diesel fuel, aromatic hydrocarbons, and Reid Vapor Pressure.

Given the importance of this source category to smog control in California, we ask that the federal preemption provision be removed from the bill. States should be able to control this source before federal regulations exist, and to adopt more stringent controls after the federal regulations are adopted.

2. Certification that a Motor Vehicle Fleet Meets Emissions Standards Should not be Based on Averaging.

The bill permits vehicle manufacturers to demonstrate compliance with tailpipe standards by the averaging of emissions within and among fleets and over time. Sec. 206(a)(5). This provision orders EPA to accept such demonstrations of average compliance "to the maximum extent feasible...." While its precise effect depends on implementing regulations, S. 1490 would at best reduce slightly, and might increase substantially, tailpipe emissions under current federal standards. The projected increase follows from the fact that most current-year models would meet or exceed S. 1490's tailpipe standards; thus, the averaging provision would allow other models to emit more. Certification of compliance with emissions standards should be done model by model, not on average, so as to ensure the lowest achievable rates of motor vehicles' emissions.

For these reasons we support the action of the Subcommittee on September 20 striking the tailpipe averaging provisions of S. 1490.

3. Transportation Plans Should Be Required To Serve Air Quality Goals.

S. 1490 does not require that long-term transportation plans incorporate the goals, measures, and deadlines of air quality plans. Although section 176(c) of the 1977 Act provides that no federal agency shall support or approve any activity that "does not conform" to an air quality plan after its approval, the U.S. Department of Transportation (DOT) reads this provision in a manner that eviscerates its potential contribution to improvement of urban air quality.[3] S. 1490, which should correct DOT's interpretation, is silent.

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[2] The language in the bill is so broad that it would probably prohibit a State or locality from controlling emissions even from vessels that are moored or docked, as well as vessels at sea.

Title 23 of the U.S. Code requires each metropolitan planning organization (MPO) to adopt a long-term transportation plan, whose horizon typically is 20 years. MPOs must also adopt five-year Transportation Improvement Programs (TIPs) to implement the long-term plans. Recognizing the interconnection between clean air and transportation planning, in 1975 EPA and the Department of Transportation (DOT) jointly issued a conformity guidance document providing that the long-term transportation plan (and the five-year plans adopted pursuant to it) "must not exacerbate any existing violation of the NAAQS," "must not contribute to a violation of NAAQS for a pollutant for which no concentrations in violation of standards have been measured," "must not delay the attainment of the NAAQS," "must not interfere with maintenance of the NAAQS, once the standards are attained," and "must include all appropriate portions of State plans to implement the NAAQS...."

DOT, however, later adopted a revised policy which superseded this guidance. Under this current policy, DOT interprets the Act to require only that a metropolitan planning organization's five-year plan contribute to reasonable progress in implementing any transportation measures contained in the SIP, and that an individual project be included in a conforming TIP or SIP in order to qualify for federal funding. See 46 Fed. Reg. 8429 (Jan. 26, 1981), 53 Fed. Reg. 35,178, 35,181 (Sept. 9, 1988). Such "conformity" has little effect since transportation control measures are not a necessary component of SIPs: thus, a highway expansion automatically conforms to a SIP which says nothing about traffic in the area. (The Act's and S. 1490's failure to require SIPs to contain such transportation measures is discussed in the following section.)

Furthermore, section 176(c), under DOT's interpretation, does not require inclusion of any air quality goal in the long-term transportation plan. Thus, the five-year plans, components of that comprehensive plan, are not designed to implement a longer-term goal of clean air.

This failure to incorporate air quality goals into transportation plans seems to administratively void section 176(d) in the current Act, under which any federal program with "air-quality related transportation consequences shall give priority" to implementation of the SIP. Unless the transportation plans pursuant to which transportation projects are implemented incorporate clean air goals, federal funding for projects such as highways and mass transit will not be adequately used for facilities that improve air quality.

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[3] The bill does direct that transportation planning under Title 23 shall "take into account" the requirements of the Clean Air Act. Sec. 174(b). That describes process, not actual conformity between transportation and air quality plans.

We believe Congress should incorporate into S. 1490 the requirements set out in the conformity guidance issued by EPA and DOT in 1975, but administratively abandoned by DOT's later policy. This would help ensure that transportation plans serve clean air goals.

4. The Bill Should Require Inclusion of Transportation Control Measures in State Implementation Plans.

The existing Clean Air Act authorizes, but does not require, inclusion of transportation control measures (TCMs) in SIPs. Pursuant to S. 1490, adoption of TCMs remains a contingency which states must consider only after the Administrator determines, at an unspecified future date, that actual traffic or congestion exceeds the level projected in the SIP. Secs. 182(c)(4), 187(b)(3). Since such projections will be submitted in the mid- to late-1990s for many cities, the bill may not contribute over the next decade to controlling the traffic congestion which contributes to our poor air quality.

Such delay in traffic management could be costly to public health. Vehicular emissions are a function of miles driven and driving conditions, as well as tailpipe standards and fuel content. The California Department of Transportation expects California's population to increase 2% a year into the next century; vehicular miles travelled (VMT) in the State to increase by 5%; and delay (defined as speed below 35 m.p.h. due to congestion) to increase by 15% a year during that period.

Absent adoption of TCMs, increased emissions caused by VMT growth and congestion will have to be completely offset by further controls on stationary sources and by the gradual switch to clean fuels which is a goal of this bill. This regulatory strategy may not work in many cities. The South Coast Air Quality Management District's 1989 plan, which does not predict attainment of the ozone, carbon monoxide, and NOx standards until 2007, characterizes as necessary various traffic control measures to reduce VMT by 27%; it also includes stricter requirements than this bill's for replacement of the existing car, truck, and bus fleets with clean-fuel vehicles.

A federal requirement for inclusion of TCMs in the next generation of SIPs for non-attainment areas would facilitate adoption of such measures, which will contribute significantly to clean air. S. 1490 should include such a requirement, and further should direct EPA to prepare timely guidance documents that will be useful to the state and local governments in the adoption of such measures.[4]

5. The Bill Does not Provide Adequate Direction for EPA's Review of States' Air Quality Plans.

In order to ensure timely attainment of the air quality standards, Congress must provide clear directions as to deadlines and the factors that should inform EPA in making discretionary decisions. Many provisions of S. 1490 do not provide such guidance.

The bill requires a lengthy series of actions, by states and EPA, that together are projected to produce clean air. This intricate and complex process of SIP planning and implementation could be disrupted or fail entirely if a few key steps do not occur, or occur too late. While the bill creates clear deadlines for many of these actions, including EPA's classification of areas according to the extent of non-attainment and the states' submittals of the first generation of plans required by the bill, it fails to do so for other key actions. For example, S. 1490 does not establish deadlines for EPA's determination that an approved SIP is in fact improving air quality as promised,[5] or for the state's submittal of a SIP revision in the event that EPA finds an earlier submittal or approved plan to be deficient (sec. 110(e)(4)).

Under S. 1490 (as under the current Act), EPA would review a SIP submittal's measures designed specifically for protection of public welfare without any legislative guidance as to the adequacy of the rate of progress. S. 1490 provides that the secondary NAAQS shall be attained a "reasonable time" after the non-attainment designation, Sec. 172(a)(2)(B), without giving any guidance as to how "reasonable" should be defined or the factors EPA should consider in determining what is "reasonable". This legislative decision, affecting millions of people, should not be entrusted to EPA unless Congress establishes the factors that would inform the Agency's decision. Given the multitude of deadlines, under the Clean Air Act and the other statutes EPA enforces, placing a deadline within EPA's discretion without giving the agency specific guidance as to how to set the deadline is, in effect, an invitation to ignore the deadline in the press of other, Congressionally fixed time limitations.

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[4] The bill does direct EPA to revise the 1978 "Transportation-Air Quality Planning Guidelines" within nine months of enactment. However, as to specific TCMs, it provides only that EPA should issue related guidance "from time to time." Sec. 108(f)(1). This rephrases the 1977 Act's section 108(f), which has been essentially undischarged since the closure of EPA's Office of Transportation and Land Use Planning in 1981: an obligation to do something "from time to time" will be a low priority relative to tasks with fixed deadlines.

[5] The timing for such determinations will depend on each state's unique circumstances. Nonetheless, the bill could, but does not, establish specific events (such as annual review of progress, or the state's submittal of an updated emissions inventory pursuant to sec. 182(a)(3)(A)) that could precipitate such determinations.

Attainment of the secondary standards does not have the priority of attainment of the health-based primary standards, but it is nevertheless of critical importance. One of the major purposes of the secondary standards is to prevent damage to agriculture and silviculture from air pollution. California's economy is based in large part on agriculture: production of food and other crops is vital not only to our economic well being but to the well being of the nation as a whole. California's Air Resources Board has found that agricultural production in the State's Central Valley is being harmed right now by air pollution, and the situation is expected to get worse. In this situation, it is vital to California's economic health that the secondary standards be met, rather than being indefinitely postponed in the rush to meet other statutory deadlines. We feel that the bill should, at a minimum, contain guidance to EPA on how to set the deadline for attainment of secondary standards, rather than simply giving the agency an open-ended direction to see that they are met in a "reasonable" time.

The bill deletes the current Act's requirement for preparation of federal implementation plans (FIPs) in specified circumstances, and provides that EPA "may" -- not shall -- promulgate a FIP "at any time" after a state's submittal of an incomplete SIP or after EPA's disapproval of a SIP submittal. Sec. 180(a). A FIP, at EPA's election, could substitute for all, or part, of a SIP. The bill defines a FIP as not necessarily providing for attainment of the relevant air quality standards. Sec. 302(r). Until the close of the FIP rulemaking, a state would not know whether it had any additional obligations to prepare a plan that satisfies the fixed requirement for a SIP -- namely, to provide for clean air by the statutory deadline.

Section 182(c)(1)(B)(ii) also raises a problem. This section discusses the reasonable further progress demonstration for serious areas. It allows EPA to excuse a serious area from the requirement of a 3% emissions reduction over baseline emissions each year if EPA decides that all feasible measures are being taken in the area. The bill directs EPA to make the determination of what is feasible "in light of technological achievability, costs, and *any* non-air quality and other air-quality-related health and environmental impacts" (emphasis added). This language, which would permit EPA to waive the 3% per year emissions reduction for areas with seriously polluted air, seems to allow EPA to base its decision on almost any factor it wishes, including factors having nothing to do with air quality.

This is far too nonspecific a set of criteria for such an important determination. While a "safety valve" that would enable EPA to allow an area some leeway from the 3% reduction requirement may be a good idea, its use must be tightly restricted, with statutory criteria for its application. The current criteria are too loose, indeed almost nonexistent.

Finally, the bill gives the Administrator discretion to choose among sanctions in the event the state fails to submit or implement, or to make reasonable efforts to submit or implement, an adequate plan by the applicable deadline. EPA shall determine which sanction (ban on construction of major sources, or a cut-off of federal grants for highways, sewage treatment, or air quality planning) is "appropriate under the circumstances." Sec. 179(a). The bill contains no criteria for these elections and thus creates unnecessary uncertainty as to the consequences of a state's failure to plan or implement as required.

In sum, the bill should specify the factors which EPA must consider in establishing each deadline that is not fixed by Congress, and in making each decision (such as the choice of sanction) that is governed by a rule of reason.

AIR TOXICS

EPA has promulgated emissions standards for only seven hazardous air pollutants over the past eighteen years. S. 1490 is intended to reinvigorate EPA's existing program, which has not reached the vast majority of sources or emissions potentially subject to control under the Act. This section of the bill, however, has several major flaws.

First, while the bill requires EPA to adopt, by specified dates, standards for specified percentages of the total number of facility categories emitting listed pollutants,[6] it does not provide adequate direction as to how EPA should establish its regulatory priorities. Section 112(e)(2) directs EPA to consider quantity and location of emissions, associated risks, and the efficiency of grouping facility categories, but does not specify how those factors should inform the Agency's strategy. The bill should clarify the procedure to be used in ordering its workload and should direct EPA to focus first on those pollutants that the Agency knows or believes create the worst dangers.

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[6] Not later than one year after enactment of the bill, the Administrator shall identify all facility categories emitting pollutants that the bill characterizes as hazardous. EPA shall establish emission standards for ten such categories not later than two years after enactment; for 25% of such categories, not later than four years after enactment; and for an additional 25%, not later than seven years after enactment. Sec. 112(e).

Second, the bill appears to authorize EPA not to regulate approximately half of the facility categories emitting listed pollutants, if the Administrator finds, "in his discretion," that regulation is not "warrant[ed]" seven years after enactment. Sec. 112(e)(1)(D). The bill includes no criteria for this finding. A better approach in any event would be to require regulation of all facility categories emitting hazardous pollutants.

Third, the provision which defines the substance of the emission standards for listed pollutants would not adequately protect public health. S. 1490 provides that emission standards shall require the "maximum" achievable control, "taking into consideration the cost of achieving such emission reduction, and any non-air quality and other air quality-related health and environmental impacts, and energy requirements...." Sec. 112(d)(2). This provision authorizes controls which are much less stringent than is feasible in engineering terms: EPA could require little change in the status quo, or the best control that money could buy, and either emissions standard would satisfy this vague mandate. This provision parallels sec. 111(a) of the current Act, under which EPA, having considered various financial and other factors, has not consistently required the best technology for control of emissions from new sources. By contrast, under California law, air toxics standards must reduce emissions to the "lowest level achievable through application of best available control technology," unless the responsible agency affirmatively determines that lesser control is adequate to protect the public health. Cal. Health & Safety Code § 39666(c). We recommend that you adopt this approach.

JUDICIAL OVERSIGHT OF EPA'S CONDUCT

S. 1490 does nothing to improve the provisions -- sections 304(a) and 307(b) of the current Act -- authorizing citizens' suits against EPA's delay and judicial review of final actions. In the 1980s, EPA has routinely defended against such litigation by arguing that Congress did not intend, or that it is unclear whether Congress intended, to create subject matter jurisdiction for the particular claim at issue. We urge Congress to clarify its intentions for citizens' suits and judicial review, since these provisions serve as a powerful incentive for the Agency to take timely and appropriate actions to improve air quality.

1. The Bill Should Lower the Barriers for Citizens' Enforcement of EPA's Obligations.

First, the Act should provide that district courts can enforce mandatory duties without specific deadlines, and that EPA must discharge any such duty within a reasonable time. This amendment would incorporate the Administrative Procedure Act's § 555(b) into the Clean Air Act: "[w]ithin a reasonable time, each agency shall proceed to conclude a matter presented to it." This amendment would reverse Sierra Club v. Thomas, 828 F.2d 783, 791 (D.C. Cir. 1987) insofar as it held that a citizens' suit cannot enforce any duty without an express deadline.

Second, the Act should provide that district courts can correct the Agency's unreasonable delay in discharging a duty dependent on a threshold finding. Many of the key provisions of the current Act and of this bill command EPA to take action once the Administrator has made such a finding -- for example, that air pollution is causing harm, but they do not establish deadlines for that finding. Under State of New York v. Thomas, 802 F.2d 1443 (D.C. Cir. 1986), a district court cannot enforce a mandatory duty until the threshold finding is published in the *Federal Register* as a rule, and in turn, cannot compel the threshold finding even if unreasonably delayed.

2. The Bill Should not Raise the Barriers for Appeal of EPA's Final Action.

S. 1490 would insulate EPA's final actions against challenges that are routine in administrative law. We oppose this amendment to section 307(b) of the current Act.

The bill provides that a reviewing court shall defer to EPA's interpretation of a SIP, if "rational." Sec. 307(h). The Administrative Procedure Act authorizes closer scrutiny of federal agencies' conduct, which a court will uphold only if not "arbitrary and capricious." Under S. 1490, a reviewing court would sustain EPA's disapproval of a state's air quality plan, even if the disapproval were demonstrably arbitrary, so long as EPA could advance any plausible reason for it.

CONCLUSION

The 1989 amendments to the Clean Air Act must ensure that our air quality is improved as expeditiously as possible. S. 1490 contains numerous provisions and omissions that would delay or impede control of smog, most particularly, the preemption of a state's standards for control of emissions from fuels, motor vehicles, and marine vessels. While it would improve the pace of federal regulation of air toxics, S. 1490 authorizes standards that are much less stringent than feasible. We urge the Subcommittee to amend S. 1490 in order to fully protect our health and environment against air pollution.

Very truly yours,

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STATEMENT BY
THE AMERICAN PLANNING ASSOCIATION
ON
THE CLEAN AIR ACT AMENDMENTS OF 1989, H.R. 3030

The American Planning Association is a non-partisan, nonprofit national organization whose members include public and private planners and elected and appointed officials at all levels of government, as well as educators, students and interested citizens. A commitment to the use of sound planning to improve our nation, its communities and regions as well as to conserve its resources and to preserve its environment unite our 24,000 members in 45 chapters which cover every state and Congressional district.

The American Planning Association has an adopted policy on environmental quality which seeks to protect renewable resources including air, preserve sites of special scenic quality, and integrate and implement environmental policies and programs into comprehensive and functional planning activities. Based on this policy, we will make a number of comments about H.R. 3030, the Clean Air Act Amendments of 1989, proposed by President Bush. These comments are organized in three parts: (1) urban air quality, (2) air toxics, and (3) acid rain.

URBAN AIR QUALITY

We applaud President Bush's goal of reducing emissions that cause smog by 45 percent by the year 2000. We want our cities and communities to have a safe and high quality environment including clean air. H.R. 3030 strives to accomplish this by relying on the current clean auto and industrial control programs, but there is no reason to believe that this goal can be met using current programs. It has been well documented that existing programs are inadequate (see Figure 1). Total emissions for carbon monoxide (CO), nitrogen oxides (NOx), volatile organic compounds (VOCs) and particulates are not declining although lead has shown a decrease since 1976. When correlated to vehicle miles traveled (see Figure 2), CO, NOx, VOC and particulates have declined slightly since 1976. Although new cars have better technology, the increased number of miles traveled and the increased number of cars being used causes the total emissions to remain constant.

Good comprehensive land use planning that is integrated with transportation planning is basic. We applaud the section of the bill requiring "coordination of air quality with the continuing cooperative and comprehensive transportation planning process." In practice, however, this "cooperation" needs to be strengthened.

One method proposed in the bill to bring about the reduction of emissions-causing smog is to impose tighter tailpipe standards on cars and light trucks for hydrocarbons and NOx. This proposal does not take advantage of current clean air technology. Eighty-five percent of today's cars already meet President Bush's proposed standards. The hydrocarbon controls are at the level currently in place in

California. Additionally, California requires a 100,000 mile warranty on emissions control equipment which is preferable to the Bush proposal of a 50,000 mile warranty and proves that stricter controls are feasible.

Light trucks, strangely enough, would be allowed more lenient standards than cars in H.R. 3030, despite the fact they have essentially the same engines. Although long overdue for the federal government to be concerned about trucks, the bill sets CO standards twenty-three percent weaker for light trucks than for cars. APA maintains that the CO standards should be the same for light trucks and for cars.

The standards for heavy vehicles do not go far enough. Pollution controls on buses, which were to take effect in 1991, will be rolled back. The timetables need to stay on track. We have seen from past experience that challenging emission standards is what is needed to encourage the development of new technology.

The bill uses alternative fuels as a strategy to clean up the air in nonattainment areas. The urban bus requirement seems very reasonable. Some buses in southern California have been running on methanol for years as part of an active demonstration program by the California Energy Commission and the South Coast Air Quality Management District. The Los Angeles Area Air Quality Management Plan calls for a complete change for all buses to alternative fuels.

Manufacturing and selling sufficient clean fuel should not be a technical problem, although it can be an economic one as oil companies do not want to see an estimated ten percent cut in sales volume of petroleum products. There will need to be incentives to get more motorists to use alternative fuels. In Denver and

Phoenix, there are people already committed to clean air who are willing to switch fuels. Nonetheless, there will be problems getting everyone to participate.

The segment of the Bush plan which allows manufacturers to receive emission credit for building clean fuel vehicles is similarly uncertain in the magnitude of its impact on cleaning the air. How can manufacturers insure motorists will buy these cleaner fuel vehicles; and if they do not, what is the penalty? Even more importantly, all these efforts are premised on our continuing reliance on the car for transportation. The root of the problem is more basic to the way our transportation system is built and its relationship to land use.

It is important, therefore, to try some other approaches, such as getting people to drive fewer miles and to use alternative forms of transportation. The basis for this approach will be to tie the development of transportation systems to land use and to provide safe and attractive alternatives to the car. Some examples are bicycling, walking, car pooling, and public transit that is accessible to all.

H.R. 3030 contains no provisions for reducing NOx from automobiles despite its contribution to acid rain and possible impact on ozone levels. Health studies show that ozone is a much more serious health problem than was thought when the current standard was established. It is also now clear that ozone is seriously detrimental to plant growth. If we do not vigorously tighten ozone standards, lower agricultural yields as well as urban plant stress may result. We need healthy vegetation, carefully placed and maintained in urban areas, in order to mitigate air pollutants and weather extremes. Overall, increased vegetation can lessen the effects of climate warming. This link between air pollution and global warming needs to be strongly and clearly articulated in any clean air legislative package.

Local and state officials need better guidelines and clearer reduction schedules. The longer deadlines to meet federal health standards of ozone are unreasonable and jeopardize the health of tens of millions of Americans. Cities should be required to meet the standards by the end of the century. Stronger sanctions and penalties will have to go along with goals or we will simply end up with more of the same delaying tactics that we have now. Penalties could include such items as disallowing building permits, denial of proposed water hook-ups, or suspension of federal transportation dollars. Sanctions need to be mandatory with penalties attached, not discretionary. Much of the current problem is directly due to inadequate consideration of air quality in the planning process and road systems that serve poorly located developments. Incentives are necessary to get cities to find alternatives to the private automobile.

While not strictly an urban issue, the impact of H.R. 3030 on the scenic quality of national parks and wilderness areas is cause for grave concern. The proposed exemption of strip mining particulates from air quality standards and the non-degradation principle is counter to a court decision ordering EPA to evaluate whether these emissions pose a threat to air quality around national parks. This court decision requiring EPA to set a NOx limit and adopt regulations to protect national parks and wilderness areas from pollutants other than SOx and NOx should not be repealed.

AIR TOXICS

Toxic pollutants can cause cancer, birth defects, reproductive diseases, and can kill instantly if in high enough doses. The federal government needs to enact measures to reduce air toxics. Despite the deadly nature of these emissions, H.R. 3030 does little to control them. Most seriously, the bill repeals the requirement that public health be protected against cancer-causing chemicals in the air. Rather, the new "unreasonable risk" test allows analysis between cost, technology feasibility and human health with no consideration given to the natural environment. This is a serious flaw in methodology. Effects that cause deformities either in a single individual (teratogenic) or those passed on to future generations (mutagenic) should also be given equal status.

While cost-benefit studies are important, the problem is how to analyze the costs and benefits and their impact on future generations. It makes no sense for H.R. 3030 to allow less than the "best available technology" for new facilities because of cost factors. Some state laws already require "state of the art" controls for new sources, and this proposed law should not undercut those requirements. Major sources of polluting emissions -- the chemical and petroleum industries -- as well as smaller sources -- dry cleaners, printers and paint shops -- need increased controls.

It is a time for toughening regulations, not extending deadlines for clean-up by as much as 25 years. Further, the lack of any required plan or penalties to deal with accidental releases is a serious gap in the proposed law. From 1982 to 1987, accidental releases caused 309 deaths and 11,341 injuries according to data released in an EPA report. H.R. 3030 also contains no provisions regarding such natural areas as the Great Lakes which are seriously threatened by air toxics.

ACID RAIN

We applaud the effort of H.R. 3030 to take concrete action to reduce acid rain causing emissions. The Bush proposal has established a goal of achieving a 10 million ton reduction of SO2 (sulfur dioxide) and a two million ton reduction of NOx emissions. Half the reductions would be achieved by the year 1995. This proposal is the strongest aspect of the Bush bill. We support two important aspects of the SO2 reduction proposal in particular: (1) utilities are free to choose whatever method they wish to achieve the reductions; and (2) utilities must pay the expenses incurred in reducing SO2. The proposal, however, falls short of the twelve million ton SO2 and four million ton NOx reductions recommended by a variety of sources, including the National Academy of Sciences.

Since 1980 is set as a baseline, the 10 million ton reduction in S02 will actually only be nine million and the President's plan means there will be no net NOx reduction. Pollution growth in the 1990s will offset this gain. Power plants and smelters will be allowed to use tall smokestacks and other techniques to disperse pollution, thus overturning court decisions that require pollution controls instead. National parks and wilderness areas will be adversely affected. The "tallstack" repeal could exacerbate the effects of high, short-term SO2 exposure for asthmatics. Strong nondegradation language for the air quality of national parks, wilderness areas and other significant sites is a must for a clean air legislative package.

The emission trading plan, allowing the trading or selling of excess reductions in NOx or SO2 to companies or plants not achieving standards, has a host of unanswered potential problems: baseline measurements of NOx are inadequate, SO2 and NOx are not equivalent so the impacts of reductions of the two are not comparable, and the two pollutants do not contribute uniformly to acid rain. From a sound land use planning perspective, there are always difficulties in trading schemes because impacts are transferred from one location to another. Planning for the receiving end of the trade area ostensibly has been done by taking into account the maximum impact that the area can sustain. How, then, can more impact be added without sacrifice of the plan's goals and reasoned analysis?

CONCLUSION

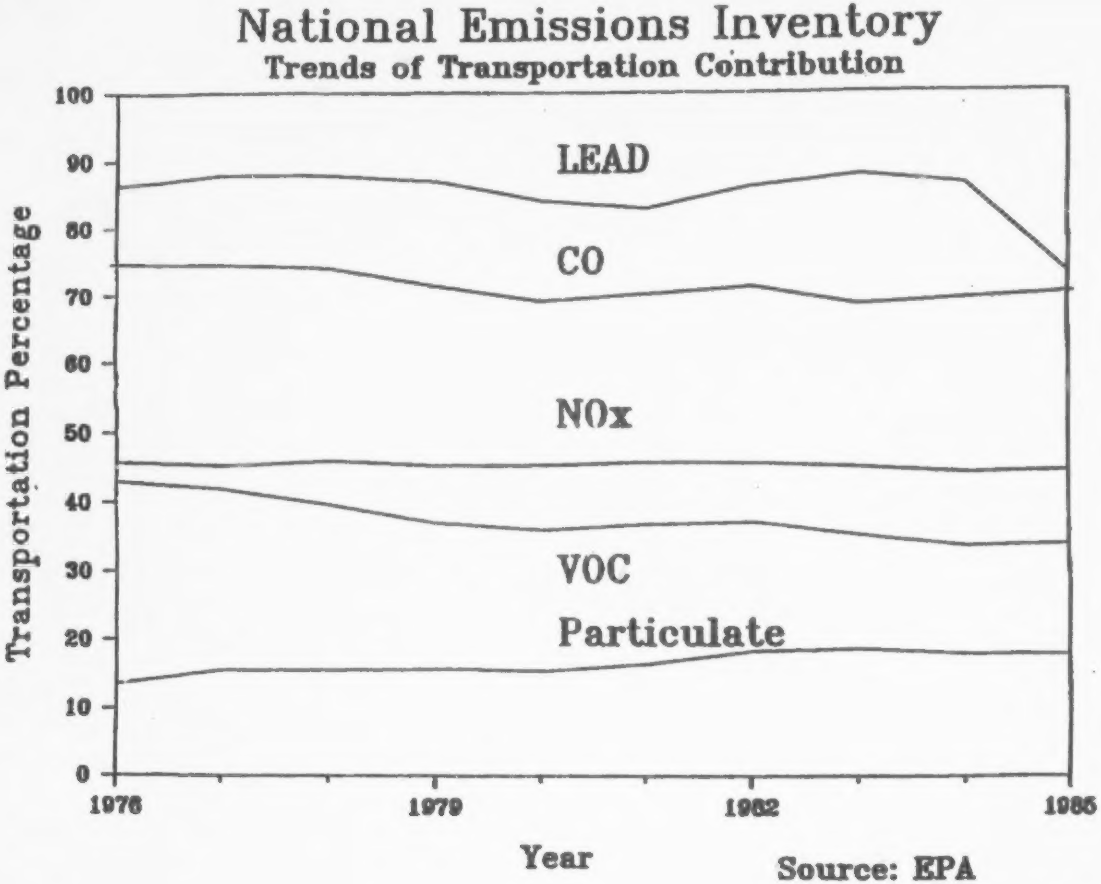
In conclusion, the bill proposed by President Bush falls short of his promise to protect air quality and address the problem of acid rain. Western states as well as impacts to scenic and natural areas are largely ignored in the bill. Standards that were previously based on health benefits to the public are altered and proposed to be based on "unreasonable risk" which includes the difficult to perform cost-benefit analysis.

While it is difficult to estimate the damage that will continue to occur without tighter controls, it is clear that this proposal will allow urban smog and toxic air pollutant emissions to continue and even to increase. Deadlines established for achieving standards or preparing plans also increase the number of years that people are exposed to unhealthy air, particularly in urban areas. We need Clean Air Act Amendments that will encourage alternative transportation modes and require the best available technology to provide a healthy environment now for the people of the United States.

* * *

This APA position combines the work of members of APA's Environmental Planning Division: Division Chair Margot W. Garcia, PhD, AICP, Department of Urban Studies and Planning, Virginia Commonwealth University; and Division members Deanna Glosser, PhD, Department of Urban Studies and Planning, University of Illinois at Urbana; Judith McCandless, AIA, AICP, Louisville, KY; and Jo Anne Aplet, who is a planner in private practice in Los Angeles, CA.

FIGURE 1



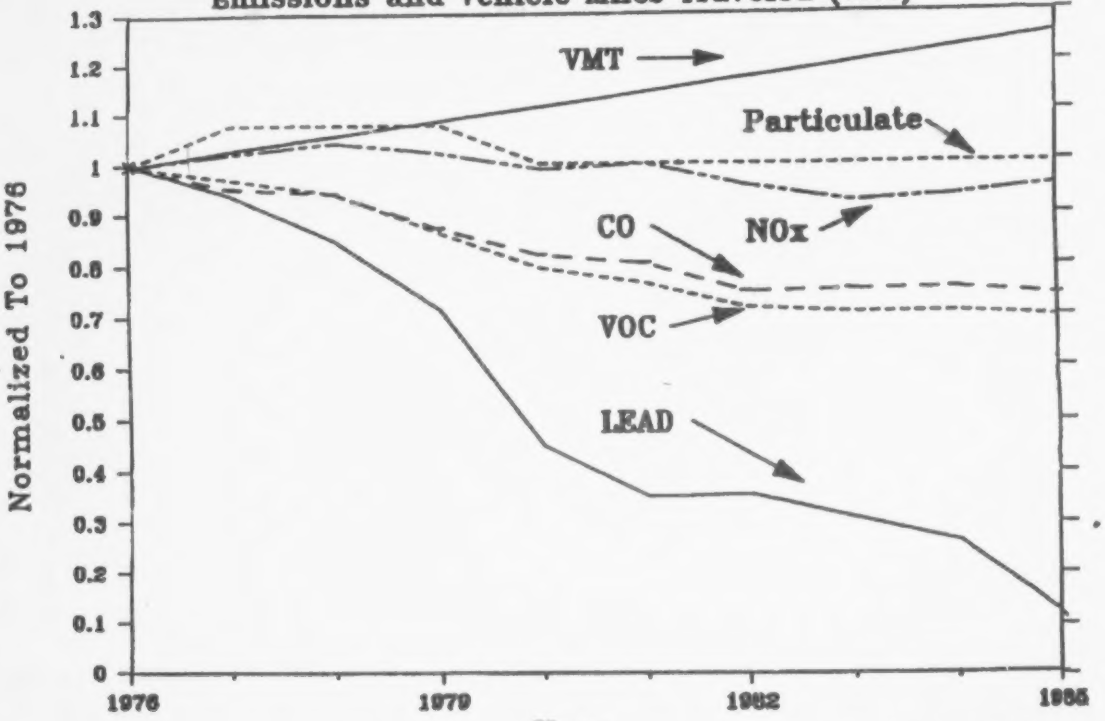
Source: EPA

Walsh/NESCAUM

FIGURE 2

National Transportation and Emissions Trends

Emissions and Vehicle Miles Traveled (VMT)



Source: EPA

Walsh/NESCAUM